

HIV | SURVEILLANCE REPORT

SUPPLEMENTAL REPORT



**Monitoring Selected National HIV
Prevention and Care Objectives
by Using HIV Surveillance Data
United States and 6 Territories and
Freely Associated States, 2022**



U.S. DEPARTMENT OF
HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE
CONTROL AND PREVENTION

This issue of the *HIV Surveillance Supplemental Report* is published by the Division of HIV Prevention (DHP), National Center for HIV, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, Georgia.

Data are presented for persons with diagnosed HIV reported to CDC through December 2023.

The *HIV Surveillance Supplemental Report* is not copyrighted and may be used and copied without permission. Citation of the source is, however, appreciated.

Suggested citation

Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 territories and freely associated states, 2022. *HIV Surveillance Supplemental Report* 2024;29(No. 2). <https://www.cdc.gov/hiv-data/nhss/national-hiv-prevention-and-care-outcomes.html>. Published May 2024. Accessed [date].

On the Web: <http://www.cdc.gov/hiv-data/>

Confidential information, referrals, and educational material on HIV

CDC-INFO

1-800-232-4636 (in English, en Español)

1-888-232-6348 (TTY)

<http://wwwn.cdc.gov/dcs/ContactUs/Form>

Acknowledgments

This report was prepared by the following staff and contractors of the Division of HIV Prevention, National Center for HIV, Viral Hepatitis, STD, and TB Prevention, CDC: Shacara Johnson Lyons, Juliet Morales, Xiaohong Hu, Pei Hou, Xueyuan Dong, Anna Satcher Johnson, Zanetta Gant Sumner, Michael Friend (editing and desktop publishing), Azfar Siddiqi (science review), and Chief of the HIV Surveillance Branch, Angela L. Hernandez.

We also thank the following staff for their contributions to the report: Division of HIV Prevention, National Center for HIV, Viral Hepatitis, STD, and TB Prevention, CDC: Anne Peruski, Matthew Spence, Fidel Desir; Division of Communication Services: Mikaelyn Benson, Deirdre Launt, and Meredith Newlove.

Publication of this report would not have been possible without the contributions of the state and territorial health departments and the HIV surveillance programs that provided surveillance data to CDC.

Guide to Acronyms and Initialisms	7
Commentary	8
National Profile	9
Special Focus Profiles	26
Gay, Bisexual, and Other Men Who Have Sex with Men	27
Persons Who Inject Drugs	29
Transgender and Additional Gender Identity Persons	33
Women (based on sex assigned at birth)	34
Persons Aged 13–24 Years	36
Persons with Perinatally Acquired HIV	38
2022 Status and Disparities in Linkage to Care and Viral Suppression	39
Technical Notes	46
References	53
Figures in the National Profile	
1 Status of CD4 and viral load reporting, by area of residence as of December 2023—United States and Puerto Rico	10
2 Stage of disease at HIV diagnosis during 2022 among persons aged ≥ 13 years, by selected characteristics—48 states and the District of Columbia	11
3 Linkage to HIV medical care within 1 month of HIV diagnosis during 2022 among persons aged ≥ 13 years, by selected characteristics—48 states and the District of Columbia	12
4 Linkage to HIV medical care within 1 month of HIV diagnosis during 2022 among persons aged ≥ 13 years, by area of residence—48 states and the District of Columbia	13
5 Viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥ 13 years, by selected characteristics—48 states and the District of Columbia	14
6 Viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥ 13 years, by area of residence—48 states and the District of Columbia	15
7 Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥ 13 years living with diagnosed HIV, by gender—48 states and the District of Columbia	16
8 Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥ 13 years living with diagnosed HIV, by age group—48 states and the District of Columbia	16
9 Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥ 13 years living with diagnosed HIV, by race/ethnicity—48 states and the District of Columbia	17
10 Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥ 13 years living with diagnosed HIV, by sex assigned at birth and transmission category—48 states and the District of Columbia	17
11 Viral suppression during 2022 among persons aged ≥ 13 years living with diagnosed HIV, by selected characteristics—48 states and the District of Columbia	18
12 Receipt of HIV medical care during 2022 among persons aged ≥ 13 years living with diagnosed HIV, by area of residence—48 states and the District of Columbia	19
13 Viral suppression during 2022 among persons aged ≥ 13 years living with diagnosed HIV, by area of residence—48 states and the District of Columbia	20
14 Prevalence-based HIV care continuum for persons aged ≥ 13 years living with HIV (diagnosed or undiagnosed) at year-end 2022—United States	21
15 Prevalence-based HIV care continuum for persons aged ≥ 13 years living with HIV (diagnosed or undiagnosed) at year-end 2022, by age group—United States	22

16	Prevalence-based HIV care continuum for persons aged ≥ 13 years living with HIV (diagnosed or undiagnosed) at year-end 2022, by race/ethnicity—United States	23
17	Prevalence-based HIV care continuum for persons aged ≥ 13 years living with HIV (diagnosed or undiagnosed) at year-end 2022, based on sex assigned at birth, by transmission category—United States	23
18	Stage 3 (AIDS) at time of HIV diagnosis during 2022 among persons aged ≥ 13 years, by area of residence—United States	24

Figures in the Special Focus Profiles

Section 1 Gay, Bisexual, and Other Men Who Have Sex With Men

19	Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among males, based on sex assigned at birth, with HIV attributed to male-to-male sexual contact, by race/ethnicity—48 states and the District of Columbia	28
20	Receipt of HIV medical care and viral suppression during 2022 among males, based on sex assigned at birth, with HIV attributed to male-to-male sexual contact, by race/ethnicity—48 states and the District of Columbia	29

Section 2 Persons Who Inject Drugs

21	Earlier and late stage of disease at HIV diagnosis during 2022 among persons with HIV attributed to injection drug use, by sex assigned at birth and race/ethnicity—48 states and the District of Columbia	30
22a	Linkage to HIV medical care within 1 month and viral suppression within 6 months of diagnosis during 2022 among males, based on sex assigned at birth, with HIV attributed to injection drug use, by race/ethnicity—48 states and the District of Columbia	31
22b	Linkage to HIV medical care within 1 month and viral suppression within 6 months of diagnosis during 2022 among females, based on sex assigned at birth, with HIV attributed to injection drug use, by race/ethnicity—48 states and the District of Columbia	31
23	Receipt of HIV medical care and viral suppression during 2022 among persons with HIV attributed to injection drug use, by sex assigned at birth and race/ethnicity—48 states and the District of Columbia	32

Section 3 Transgender and Additional Gender Identity Persons

24	Receipt of HIV medical care and viral suppression during 2022 among transgender and additional gender identity persons—48 states and the District of Columbia	34
----	---	----

Section 4 Women

25	Earlier and late stage of disease at HIV diagnosis during 2022 among females, based on sex assigned at birth, by race/ethnicity—48 states and the District of Columbia	35
26	Receipt of HIV medical care and viral suppression during 2022 among females, based on sex assigned at birth, by race/ethnicity—48 states and the District of Columbia	36

Section 5 Persons Aged 13–24 Years

27	Receipt of HIV medical care and viral suppression during 2022 among persons aged 13–24 years, by sex assigned at birth and race/ethnicity—48 states and the District of Columbia	37
----	--	----

Section 6 Persons with Perinatally Acquired HIV

28	Perinatally acquired HIV among persons born in the United States, by year of birth and birthing person's race/ethnicity, 2018–2022—United States	38
----	--	----

Section 7 2022 Status and Disparities in Linkage to Care and Viral Suppression

29	Status of linkage to HIV medical care within 1 month of HIV diagnosis during 2022 among persons aged ≥ 13 years, by selected characteristics—48 states and the District of Columbia	40
30	Status of viral suppression during 2022 among persons aged ≥ 13 years living with diagnosed HIV, by selected characteristics—48 states and District of Columbia	43

Tables

1a	Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥ 13 years, by selected characteristics—48 states and the District of Columbia	57
1b	Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥ 13 years, by area of residence—48 states and the District of Columbia	58
1c	Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥ 13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia	59

1d	Stage of disease at time of HIV diagnosis during 2022 among males, based on sex assigned at birth, aged ≥ 13 years with HIV attributed to male-to-male sexual contact, by race/ethnicity and age at diagnosis—48 states and the District of Columbia	73
1e	Stage of disease at time of HIV diagnosis during 2022 among transgender and additional gender identity persons aged ≥ 13 years, by selected characteristics—48 states and the District of Columbia	75
2a	Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥ 13 years, by selected characteristics—48 states and the District of Columbia	77
2b	Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥ 13 years, by area of residence—48 states and the District of Columbia	78
2c	Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥ 13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia	79
2d	Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among males, based on sex assigned at birth, aged ≥ 13 years with HIV attributed to male-to-male sexual contact, by race/ethnicity and age at diagnosis—48 states and the District of Columbia	86
2e	Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among transgender and additional gender identity persons aged ≥ 13 years, by selected characteristics—48 states and the District of Columbia	87
3a	Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥ 13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by selected characteristics—48 states and the District of Columbia	89
3b	Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥ 13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—48 states and the District of Columbia	90
3c	Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥ 13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by race/ethnicity and selected characteristics—48 states and the District of Columbia	92
3d	Receipt of HIV medical care and viral suppression during 2022 among males, based on sex assigned at birth, aged ≥ 13 years with HIV attributed to male-to-male sexual contact, by race/ethnicity and age group—48 states and the District of Columbia	99
3e	Receipt of HIV medical care and viral suppression during 2022 among transgender and additional gender identity persons aged ≥ 13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by selected characteristics—48 states and the District of Columbia	101
4a	HIV viral suppression during 2022 among persons aged ≥ 13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by selected characteristics—48 states and the District of Columbia	103
4b	HIV viral suppression during 2022 among persons aged ≥ 13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—48 states and the District of Columbia	105
5	Prevalence-based HIV care continuum for persons aged ≥ 13 years living with HIV (diagnosed or undiagnosed) at year-end 2022, by selected characteristics—United States	107
6a	Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥ 13 years, by year of diagnosis and selected characteristics, 2018–2022—United States	108
6b	Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥ 13 years, by year of diagnosis and selected characteristics, 2018–2022—United States and 6 territories and freely associated states	110
6c	Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥ 13 years, by year of diagnosis and area of residence, 2018–2022—United States and 6 territories and freely associated states	112
6d	Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥ 13 years, by race/ethnicity and area of residence, 2022—United States	114
7a	Deaths (any cause) of persons aged ≥ 13 years with diagnosed HIV, by year of death and selected characteristics, 2018–2022—United States	115
7b	Deaths (any cause) of persons aged ≥ 13 years with diagnosed HIV, by year of death and selected characteristics, 2018–2022—United States and 6 territories and freely associated states	117

7c	Deaths (any cause) of persons aged ≥ 13 years with diagnosed HIV, by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states	119
7d	Deaths (any cause) of persons aged ≥ 13 years with diagnosed HIV disease ever classified as stage 3 (AIDS), by year of death and selected characteristics, 2018–2022—United States	124
7e	Deaths (any cause) of persons aged ≥ 13 years with diagnosed HIV disease ever classified as stage 3 (AIDS), by year of death and selected characteristics, 2018–2022—United States and 6 territories and freely associated states	126
7f	Deaths (any cause) of persons aged ≥ 13 years with diagnosed HIV disease ever classified as stage 3 (AIDS), by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states	127
8a	Persons aged ≥ 13 years surviving >3 years after HIV diagnosis during 2014–2019, by year of diagnosis and selected characteristics—United States	132
8b	Persons aged ≥ 13 years surviving >3 years after HIV diagnosis during 2014–2019, by year of diagnosis and selected characteristics—United States and 6 territories and freely associated states	133
8c	Persons aged ≥ 13 years surviving >3 years after HIV diagnosis during 2014–2019, by year of diagnosis and area of residence—United States and 6 territories and freely associated states	134
8d	Persons aged ≥ 13 years with HIV surviving >3 years after stage 3 (AIDS) classification during 2014–2019, by year of diagnosis and selected characteristics—United States	135
8e	Persons aged ≥ 13 years with HIV surviving >3 years after stage 3 (AIDS) classification during 2014–2019, by year of diagnosis and selected characteristics—United States and 6 territories and freely associated states	136
8f	Persons aged ≥ 13 years with HIV surviving >3 years after stage 3 (AIDS) classification during 2014–2019, by year of diagnosis and area of residence—United States and 6 territories and freely associated states	137
9a	Perinatally acquired HIV, by year of birth and birthing person’s race/ethnicity, 2018–2022—United States	138
9b	Perinatally acquired HIV among persons born in the United States, by year of birth and birthing person’s race/ethnicity, 2018–2022—United States	138
10	Status of CD4 and viral load reporting by HIV surveillance reporting area, as of December 2023—United States and U.S. territories and freely associated states	139

Appendix: Tables for Ending the HIV Epidemic Phase I Jurisdictions

A1	Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥ 13 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions	141
A2	Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥ 13 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions	142
A3	Receipt of HIV medical care during 2022 among persons aged ≥ 13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—Ending the HIV Epidemic Phase I jurisdictions	144
A4	HIV viral suppression during 2022 among persons aged ≥ 13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—Ending the HIV Epidemic Phase I jurisdictions	146

Guide to Acronyms and Initialisms

ACS	American Community Survey
AGI	additional gender identity
AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
CD4	CD4+ T-lymphocyte count (cells/mm ³ or cells/μL) or percentage
CDC	Centers for Disease Control and Prevention
COVID-19	coronavirus disease 2019
DHP	Division of HIV Prevention
EHE	Ending the HIV Epidemic in the U.S.
FDA	Food and Drug Administration
HIV	human immunodeficiency virus
IDU	injection drug use
MMSC	male-to-male sexual contact
MMSC-IDU	male-to-male sexual contact <i>and</i> injection drug use
MSA	metropolitan statistical area
MSM	gay, bisexual, and other men who have sex with men
ND	not detected
NHANES	National Health and Nutrition Examination Survey
NHSS	National HIV Surveillance System
OI	opportunistic illness
OMB	Office of Management and Budget
PrEP	preexposure prophylaxis
PWID	persons who inject drugs
SAAB	sex assigned at birth
SDOH	social determinants of health
STD	sexually transmitted disease
STI	sexually transmitted infections
VS	viral suppression
ZCTA	ZIP Code tabulation area

Commentary



The Centers for Disease Control and Prevention (CDC) collects data to monitor progress toward achieving national goals and the objectives set forth in federal directives [1–4]. This surveillance supplemental report complements the 2022 *HIV Surveillance Report* [5] and presents the results of focused analyses of National HIV Surveillance System (NHSS) [6] data to measure progress toward achieving HIV prevention and care goals [1–3]. Data in this report are used to inform program planning and accelerate action to reach disproportionately affected populations and to achieve national goals outlined in Healthy People 2030, the National HIV/AIDS Strategy (2022–2025), the Ending the HIV Epidemic in the U.S. (EHE) initiative, and the U.S. Playbook to Address Social Determinants of Health (the Playbook) [1–4, 7].

Most data in this report are available via [NCHHSTP AtlasPlus](#), an interactive tool that gives users the ability to create customized tables, maps, and charts using CDC’s surveillance data on HIV, viral hepatitis, sexually transmitted diseases, and tuberculosis. Data can be stratified by disease, year, geography, and selected characteristics. AtlasPlus also provides access to indicators on social determinants of health (SDOH).



REPORT CHANGES

- Terminology was updated for the following:
 - Gender identity labels (i.e., “Male” updated to “Man”; “Female” updated to “Woman”)
 - “Mother” updated to “Birthing Person”
 - “U.S. dependent areas” updated to “U.S. territories and freely associated states”
- Figure updates
 - Key findings included
 - Viral suppression within 6 months of HIV diagnosis figure added
- CDC has paused the reporting of preexposure prophylaxis (PrEP) coverage data. Please refer to the National Profile section of this report for more information.

National Profile

Data presented in this report are based on case data reported to CDC through December 31, 2023. The data are provisional with a 12-month reporting delay for the assessment of diagnoses, deaths, and prevalence for the year 2022. The statements in this section, unless otherwise indicated, are based on 12 or more cases, and percentages are rounded to whole numbers. Numbers less than 12, and percentages and rates based on these numbers, should be interpreted with caution.

Important notes

- Jurisdictions (48 states and the District of Columbia) that reported complete CD4+ T-lymphocyte (CD4) and viral load laboratory results to CDC were included for the analyses that require laboratory data (Tables 1a–4b).
- Data from the 50 states, the District of Columbia, and 6 U.S. territories and freely associated states (where indicated) were used for analyses of prevalence-based HIV care continuum (Table 5); stage 3 (AIDS) at the time of HIV diagnosis (Tables 6a–6d); deaths and survival of persons with diagnosed HIV (Tables 7a–8f); and persons with diagnosed, perinatally acquired HIV (Tables 9a/b).
- For tables that include data by transmission category, the data were statistically adjusted to account for missing transmission category, and the percentages are presented based on sex assigned at birth (SAAB) as reported in the tables.
- Please use caution when interpreting data for transgender men, additional gender identity (AGI) persons, American Indian/Alaska Native persons, and Native Hawaiian/other Pacific Islander persons as the percentages and/or rates are based on small numbers.
- Data for the year 2020, the first year of the COVID-19 pandemic, should be interpreted with caution due to the impact of the pandemic on access to HIV testing, care-related services, and case surveillance activities in state/local jurisdictions. The ongoing impact of the pandemic on HIV testing, diagnoses, and treatment varied by jurisdiction, with slower recovery in some jurisdictions [8–12]. Therefore, consider the potential influence of COVID-19 pandemic effects on HIV data for subsequent years.
- Please read all titles and footnotes carefully to ensure a complete understanding of the displayed data. **Percentages**, not rates, are calculated for the care outcomes.
- See Technical Notes for information on definitions and data specifications. Please note important, actionable findings are called to attention with the exclamation  icon and key points with the magnifying  glass icon.

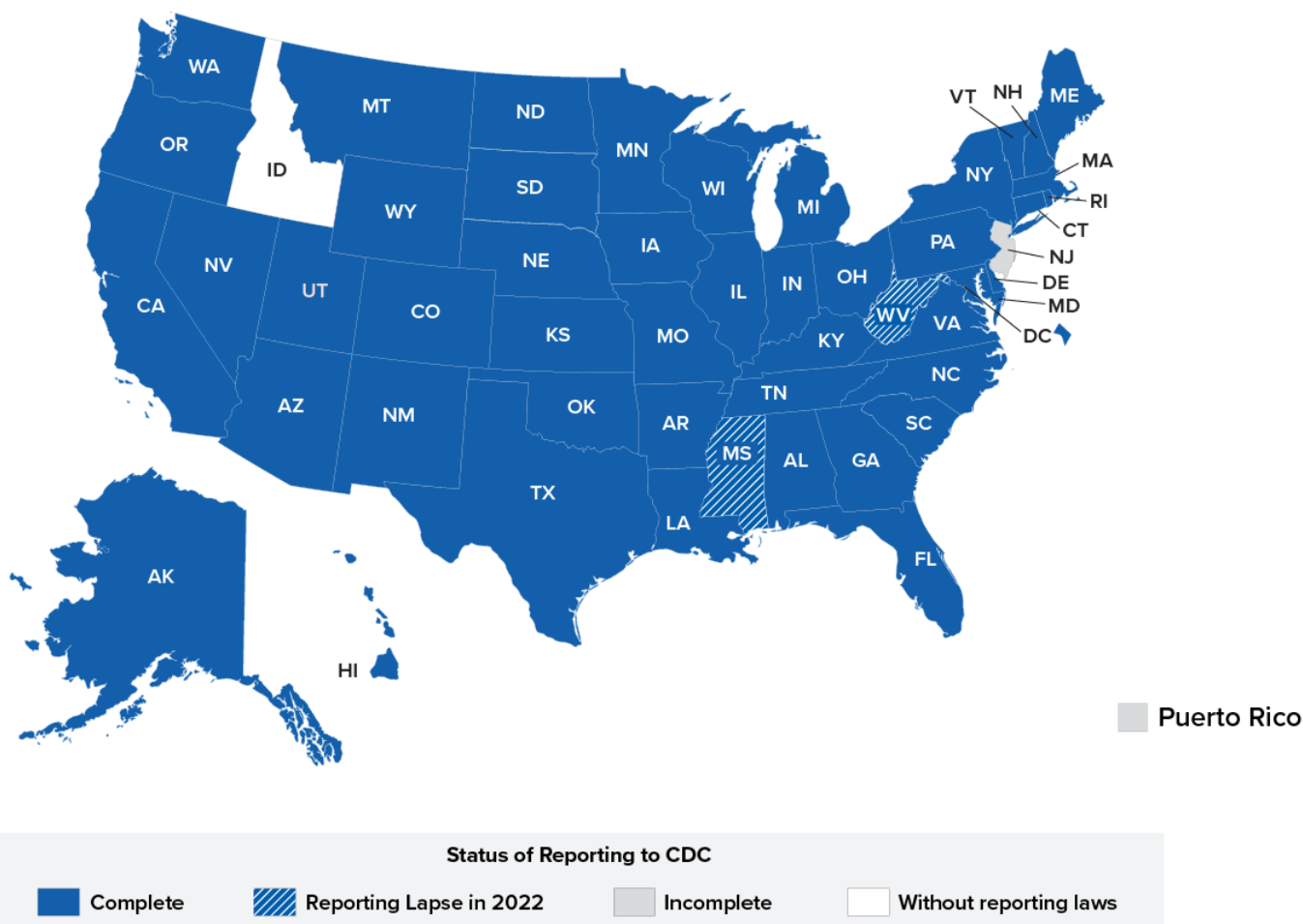
STATUS OF LABORATORY REPORTING

Monitoring stage of disease at time of diagnosis, linkage to HIV medical care, receipt of HIV medical care, and viral suppression (based on NHSS data) are dependent upon complete reporting of HIV-related laboratory results (including CD4 and viral load results; see Technical Notes) to HIV surveillance programs and CDC. Although most jurisdictions have regulations that require laboratories and providers to report at least a subset of CD4 and viral load test results to health departments, not all jurisdictions have mandatory reporting of all levels of CD4 and viral load (i.e., detectable and undetectable) results.

As of December 2023, 49 jurisdictions (48 states and the District of Columbia) had complete laboratory reporting for specimens collected from at least January 2021 through September 2023 (Figure 1). In comparison

with the 2021 report, the 2022 report includes data from 1 additional state (Pennsylvania) that met the criteria. New Jersey recently enacted laws to require laboratories to report all CD4 and viral load test results, but a full reporting year of laboratory results to NHSS is required before data are subsequently included in care analyses. Please use caution when interpreting data for certain regions as the Northeast includes New Jersey and the West includes Idaho, which does not have mandatory reporting of all levels of laboratory reporting. Data for Mississippi and West Virginia were included in analyses but should also be interpreted with caution due to a lapse in laboratory reporting that occurred during the year 2022.


Figure 1. Status of CD4 and viral load reporting, by area of residence as of December 2023—United States and Puerto Rico



Note. New Jersey recently enacted laws to require laboratories to report all CD4 and viral load test results, but a full calendar year of reporting laboratory results to CDC is required before data are included in care analyses. Mississippi and West Virginia had a lapse in laboratory reporting that occurred during the year 2022 (indicated with stripes).

DIAGNOSIS-BASED HIV CARE CONTINUUM—OVERVIEW

The diagnosis-based HIV care continuum describes each step of the continuum as a percentage of the number of persons living with diagnosed HIV. The denominator is the number of persons aged ≥ 13 years living with diagnosed HIV at year-end 2022.

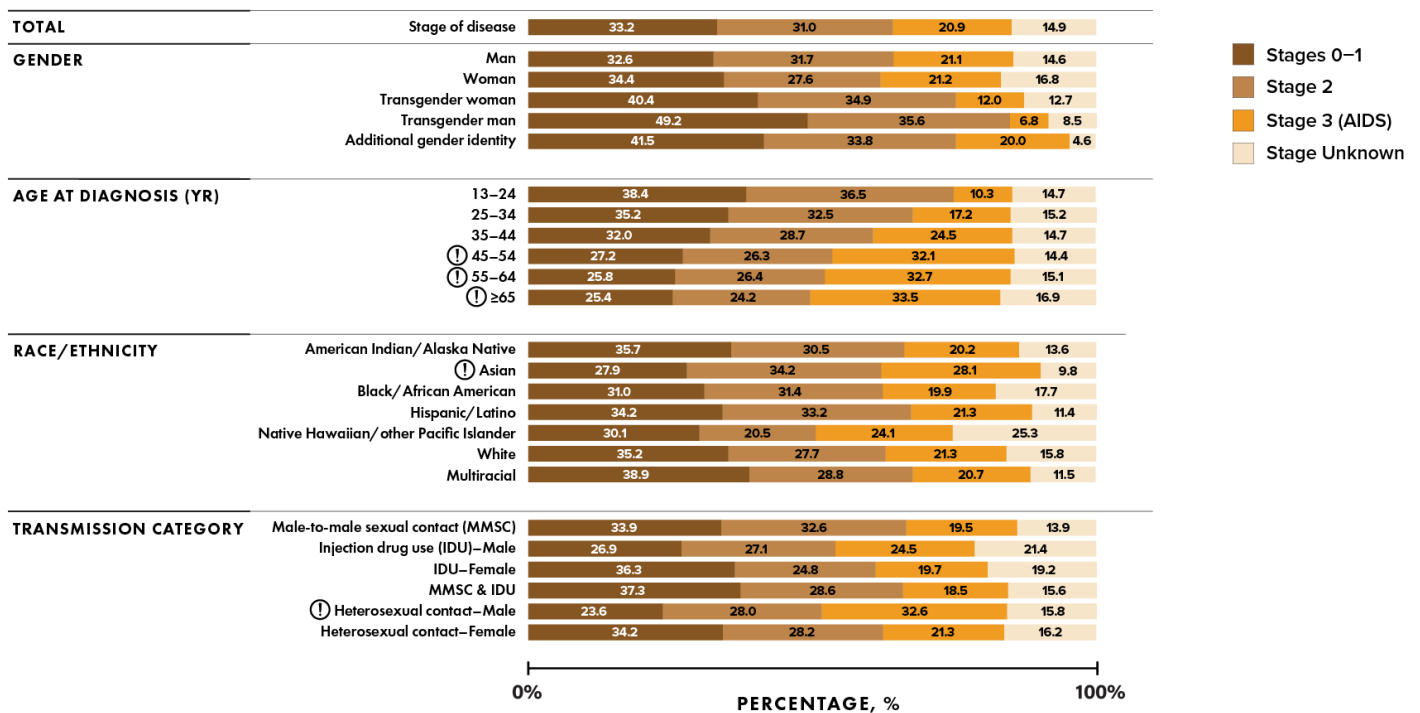
 *Note.* Denominator for stage of disease, linkage to care within 1 month, and viral suppression within 6 months of diagnosis is limited to persons with HIV diagnosed in a single year.

Stage of disease at time of HIV diagnosis


Among 36,470 persons aged ≥ 13 years with HIV diagnosed during 2022 in 49 jurisdictions with complete reporting of laboratory data to CDC, the stage of disease at time of diagnosis was classified as follows: stage 0 (8%), stage 1 (26%), stage 2 (31%), stage 3 (AIDS) (21%), and stage unknown (15%) (Figure 2, Table 1a).

- Overall, a higher percentage (34%) received an earlier stage diagnosis (stages 0 or 1) than a late stage (stage 3 [AIDS]) classification (21%).
- Higher percentage of persons received a late stage or stage 3 (AIDS) classification than an earlier stage diagnosis—persons aged ≥ 45 years, Asian persons, and males with HIV attributed to heterosexual contact (Figure 2).

Figure 2. Stage of disease at HIV diagnosis during 2022 among persons aged ≥ 13 years, by selected characteristics—48 states and the District of Columbia



Note. Data have been statistically adjusted to account for missing transmission category. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had a higher percentage of persons who received a late stage classification.

Higher or equivalent percentage of persons received a late stage classification compared to an earlier stage diagnosis, respectively (Table 1b) in the following areas: 

- Delaware—31% vs 24%
- Maine—27% vs 24%
- Mississippi—17% vs 16%

Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis

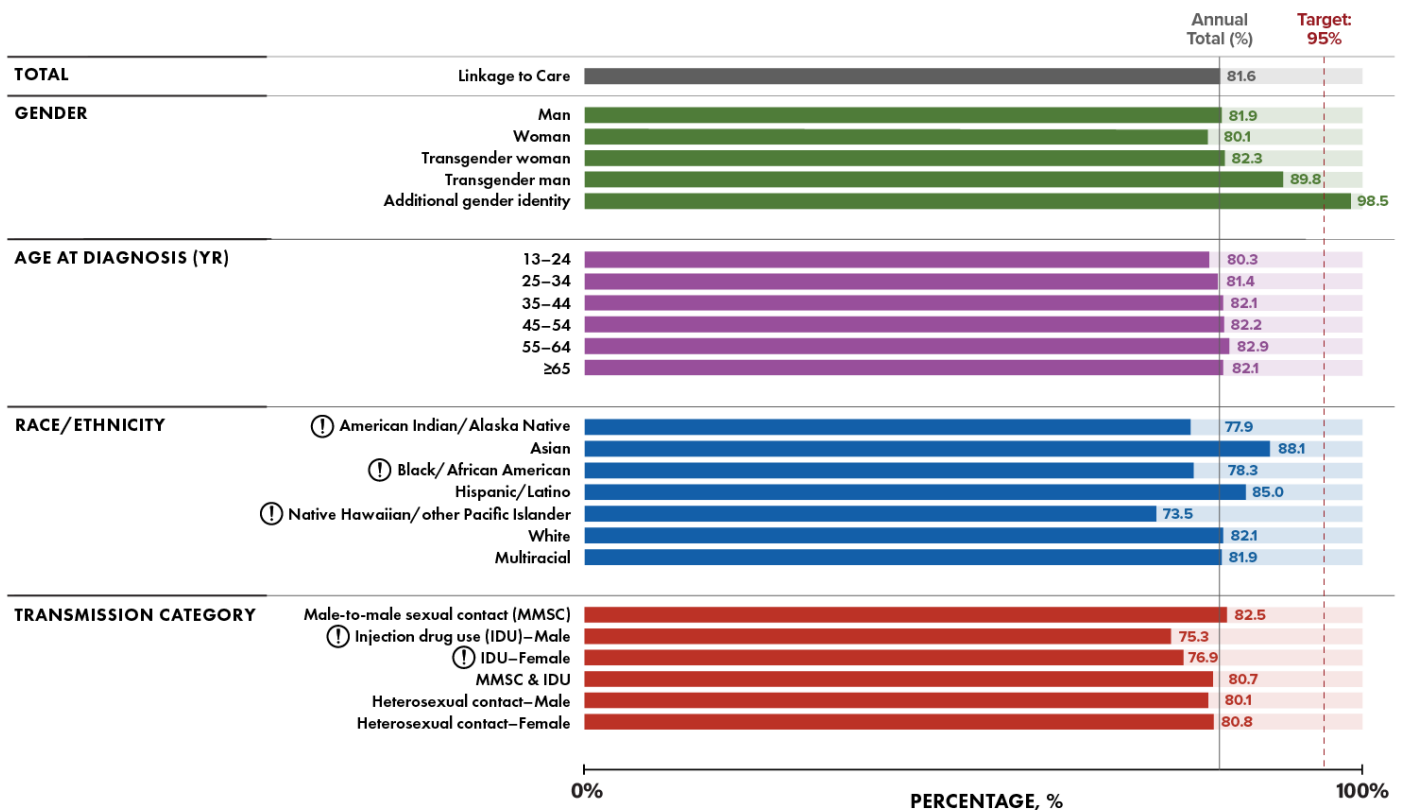
Linkage to HIV medical care within 1 month

Among 36,470 persons with HIV diagnosed during 2022 in the 49 jurisdictions with complete reporting of laboratory data to CDC, 82% were linked to HIV medical care within 1 month of diagnosis (Figure 3, Table 2a).



- Highest percentages—transgender men and AGI persons (Figure 3).
- Lowest percentages (<80%)—American Indian/Alaska Native persons, Black/African American persons, Native Hawaiian/other Pacific Islander persons, and persons with HIV attributed to injection drug use (IDU) (Figure 3).

Figure 3. Linkage to HIV medical care within 1 month of HIV diagnosis during 2022 among persons aged ≥13 years, by selected characteristics—48 states and the District of Columbia

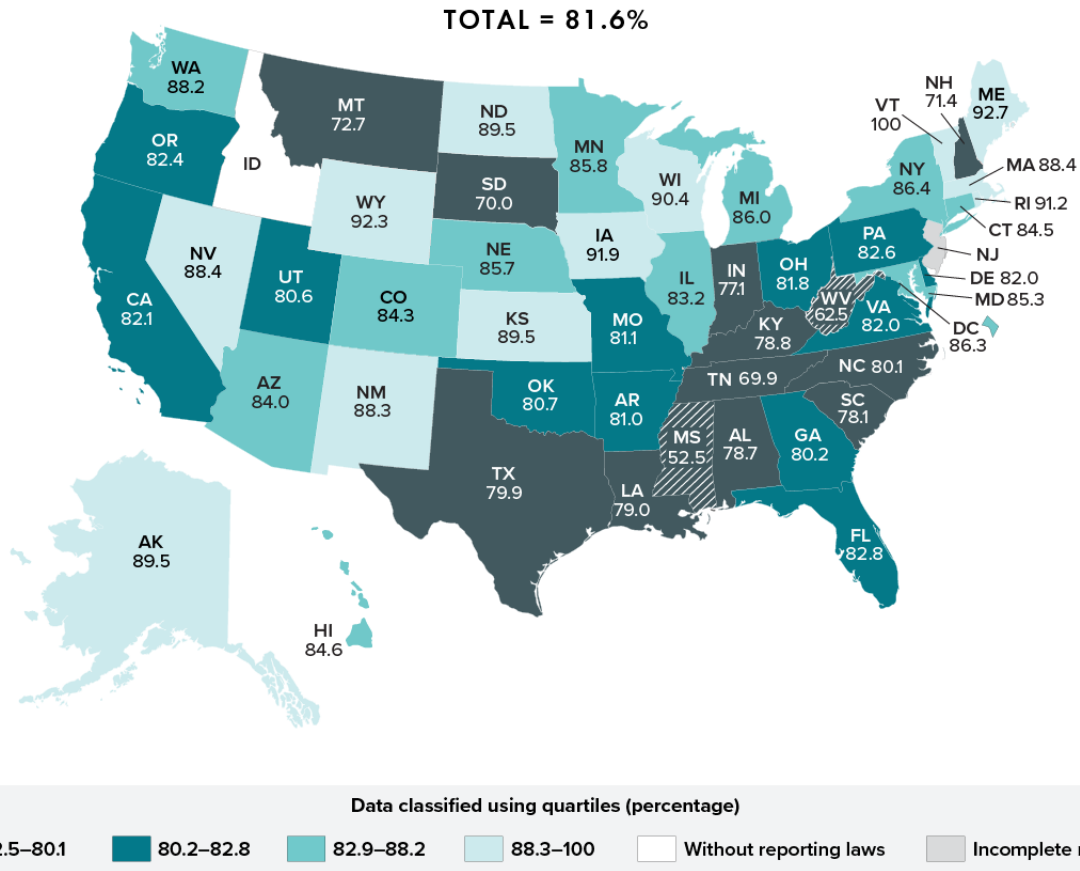


Note. Data have been statistically adjusted to account for missing transmission category. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had percentages of persons linked to HIV medical care <80%.



See Figure 4 for areas with the lowest percentages of persons linked to HIV medical care.

Figure 4. Linkage to HIV medical care within 1 month of HIV diagnosis during 2022 among persons aged ≥13 years, by area of residence—48 states and the District of Columbia



Note. Data for striped states should be interpreted with caution due to a lapse in laboratory reporting that occurred during the year 2022.

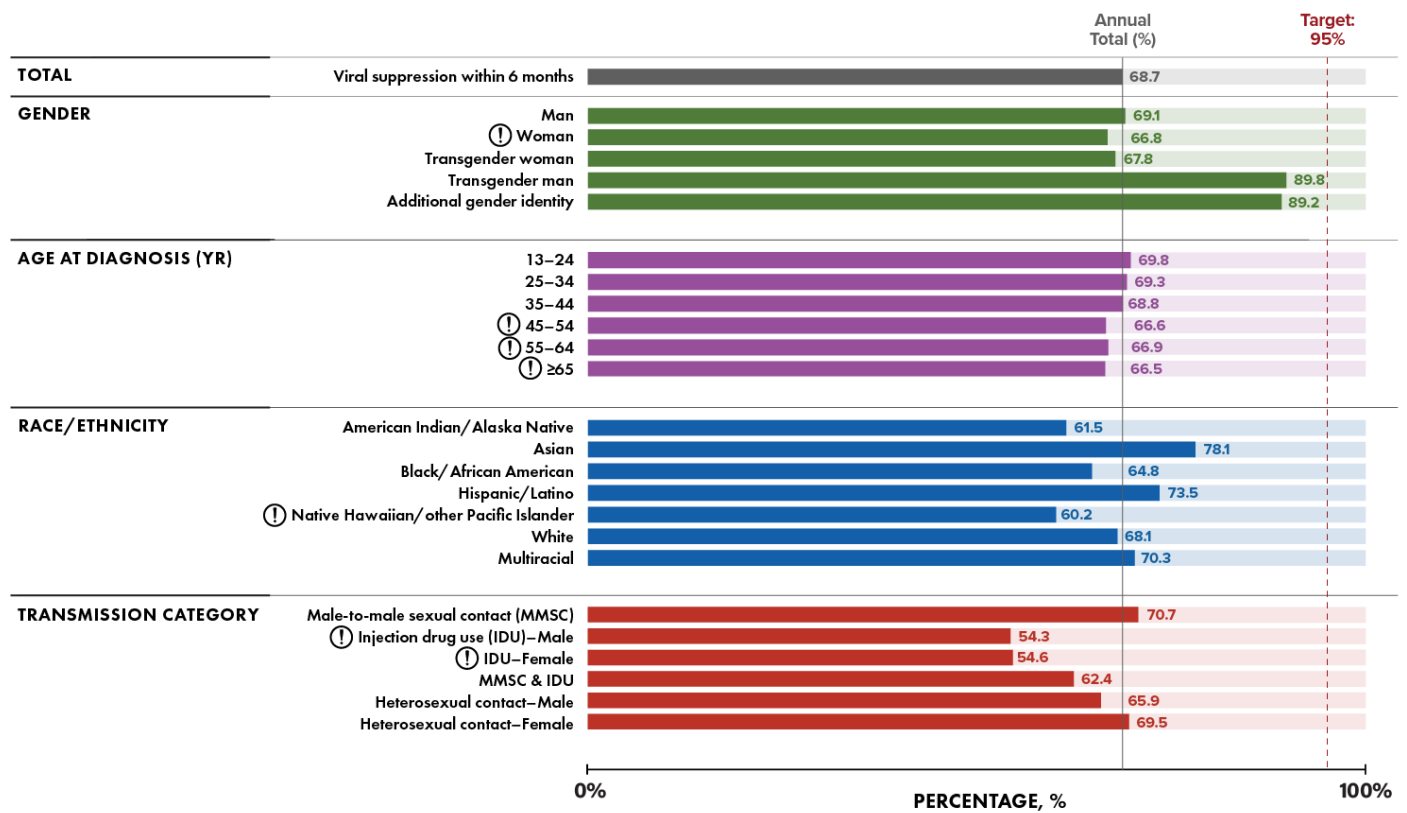
Viral suppression within 6 months

Among 36,470 persons with HIV diagnosed during 2022 in the 49 jurisdictions with complete reporting of laboratory data to CDC, viral load was suppressed within 6 months of HIV diagnosis in 69% of persons (Figure 5, Table 2a).



- Highest percentages—transgender men and AGI persons (Figure 5).
- Lowest percentages—women, persons aged ≥45 years, Native Hawaiian/other Pacific Islander persons, and persons with HIV attributed to IDU (Figure 5).

Figure 5. Viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥13 years, by selected characteristics—48 states and the District of Columbia

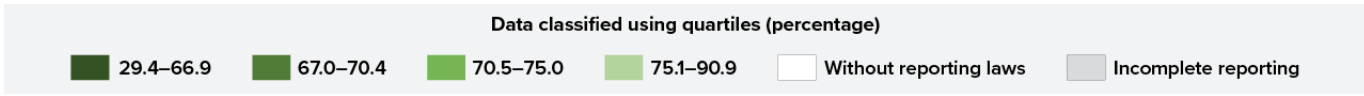
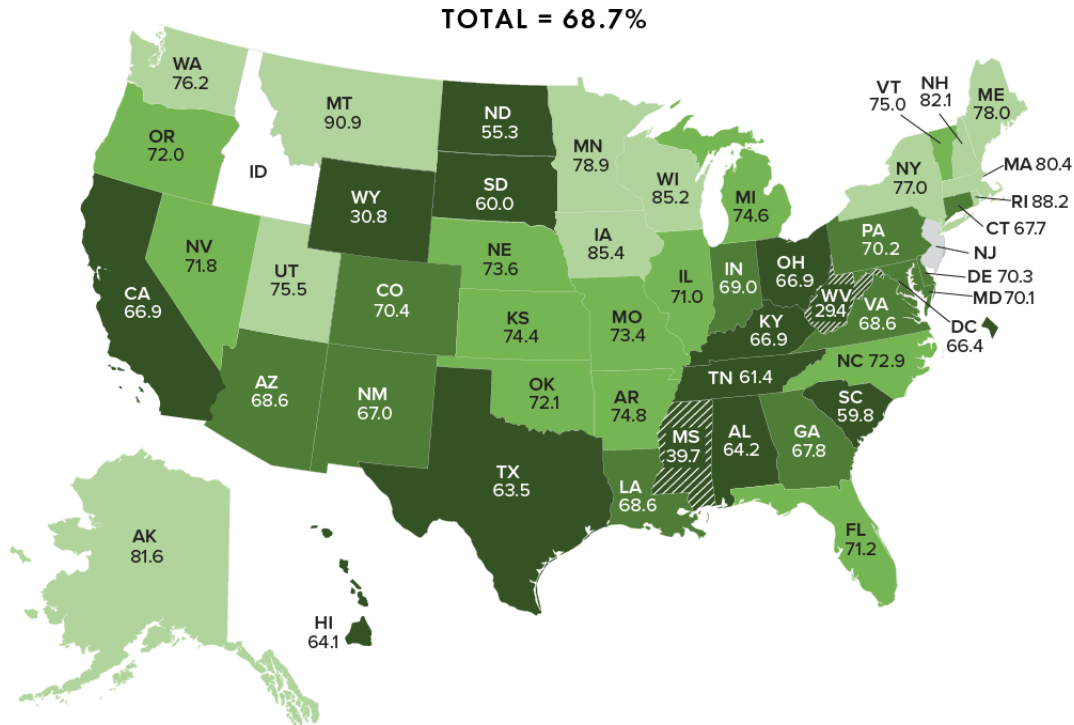


Note. Data have been statistically adjusted to account for missing transmission category. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentages of viral suppression within 6 months of diagnosis.



See Figure 6 for areas with the lowest percentages of persons with viral suppression.

Figure 6. Viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥13 years, by area of residence—48 states and the District of Columbia



Note. Data for striped states should be interpreted with caution due to a lapse in laboratory reporting that occurred during the year 2022.

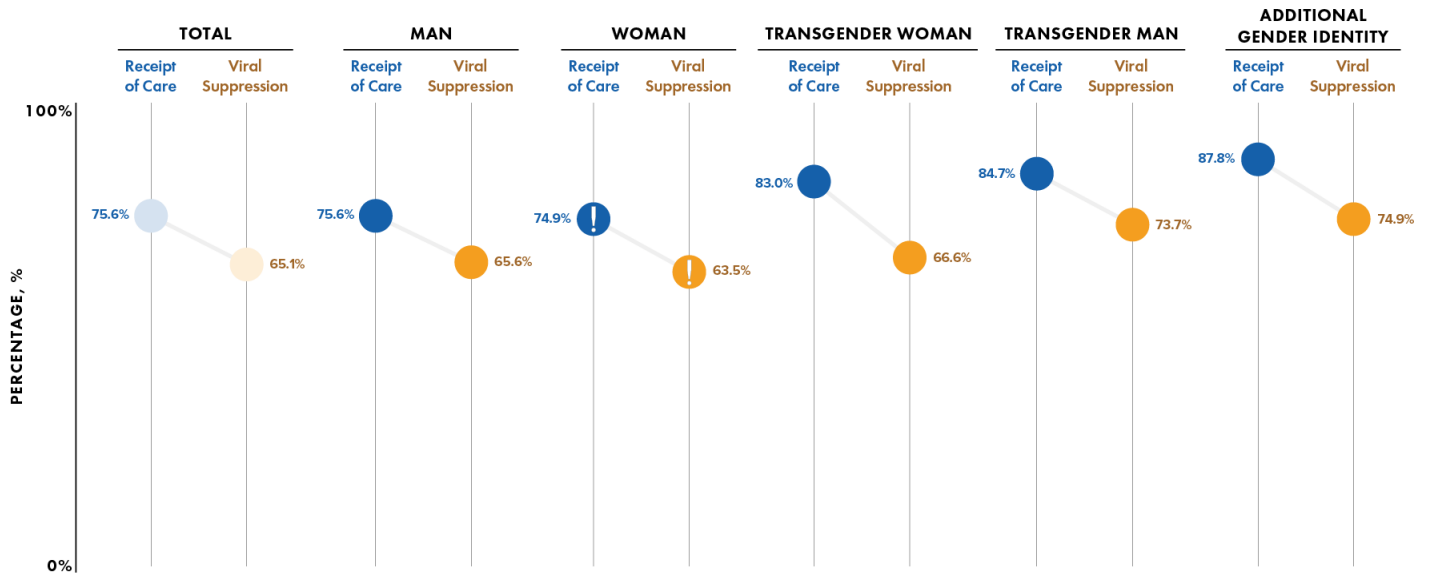


Receipt of HIV medical care and viral suppression

During 2022, 76% of 1,018,430 persons alive at year-end 2022 received any HIV medical care (at least 1 CD4 or viral load test), and 65% of persons had viral suppression at the most recent viral load test in 49 jurisdictions with complete reporting of laboratory data to CDC (Tables 3a and 4a).

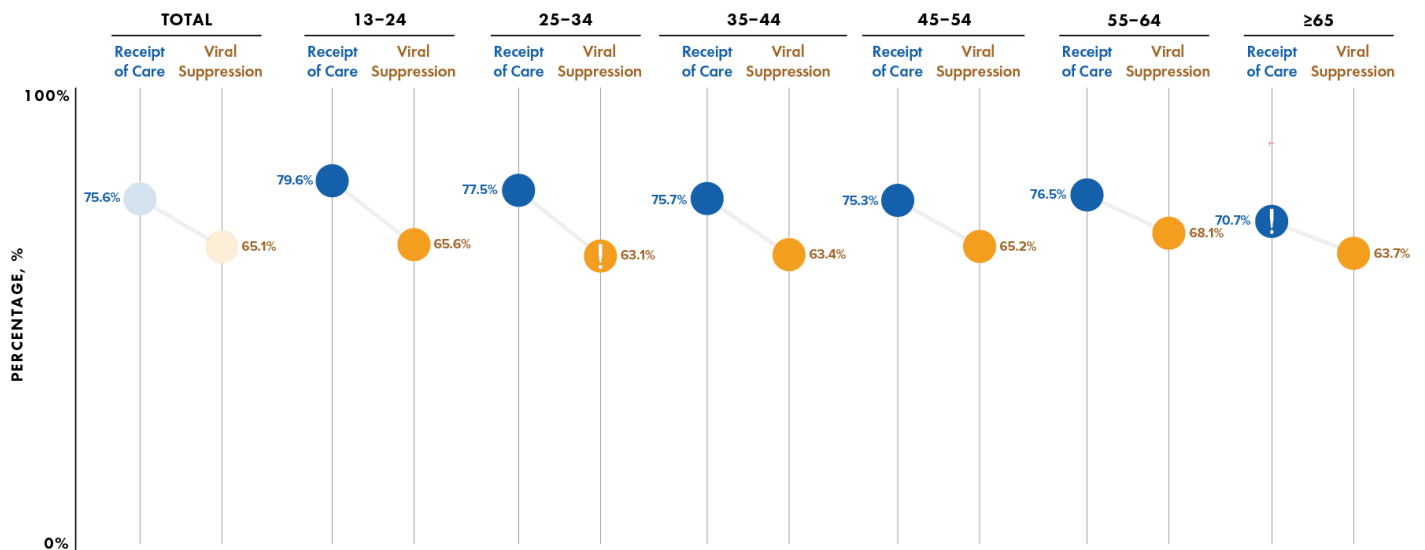
- Lowest percentages of persons who received any HIV medical care—women, persons aged ≥65 years, Hispanic/Latino persons, Black/African American persons, and persons with HIV attributed to IDU (Figures 7–10, Table 3a).
- Lowest percentages of persons with viral suppression at the most recent viral load test—women, persons aged 25–34 years, Black/African American persons, and persons with HIV attributed to IDU (Figures 7–11, Table 3a)

Figure 7. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years living with diagnosed HIV, by gender—48 states and the District of Columbia



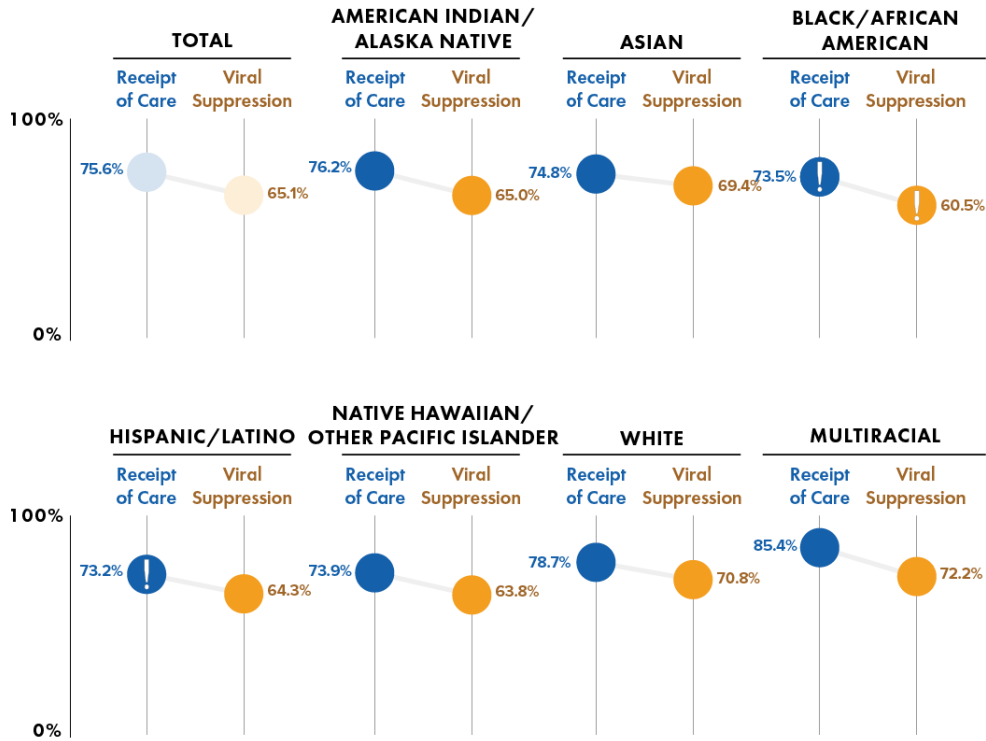
Note. Data for the year 2022 are preliminary and based on deaths reported to CDC as of December 2023. Groups with an exclamation point (!) had the lowest percentages of receipt of care and viral suppression.

Figure 8. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years living with diagnosed HIV, by age group—48 states and the District of Columbia



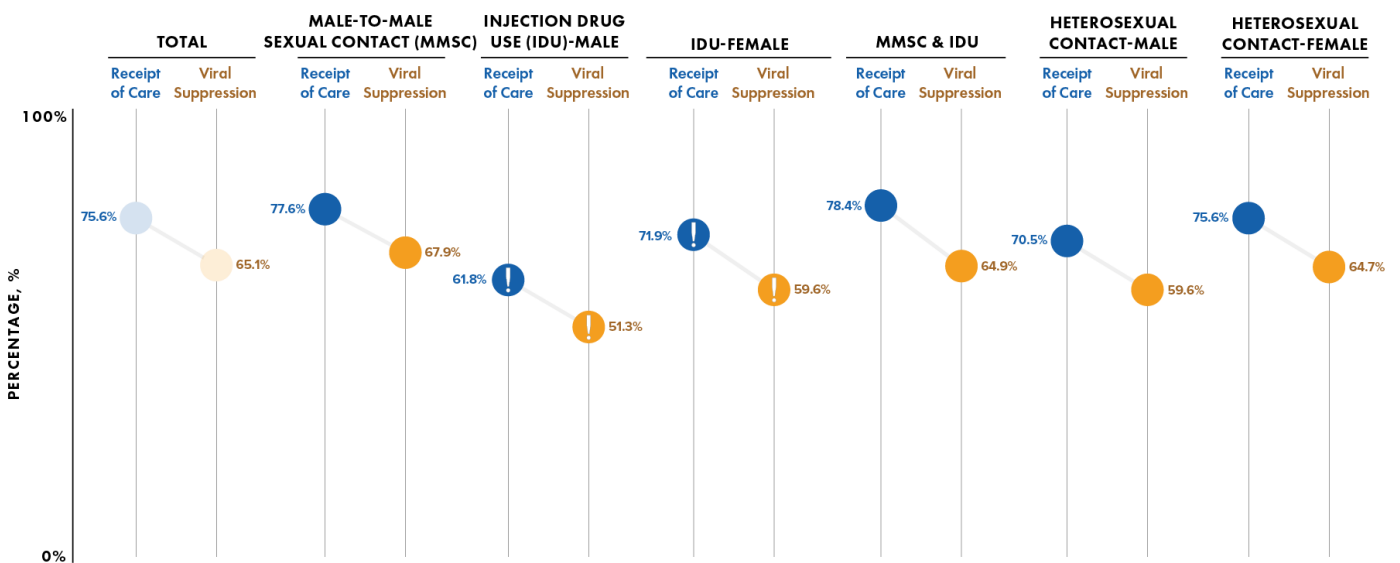
Note. Data for the year 2022 are preliminary and based on deaths reported to CDC as of December 2023. Groups with an exclamation point (!) had the lowest percentages of receipt of care and viral suppression.

Figure 9. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years living with diagnosed HIV, by race/ethnicity—48 states and the District of Columbia



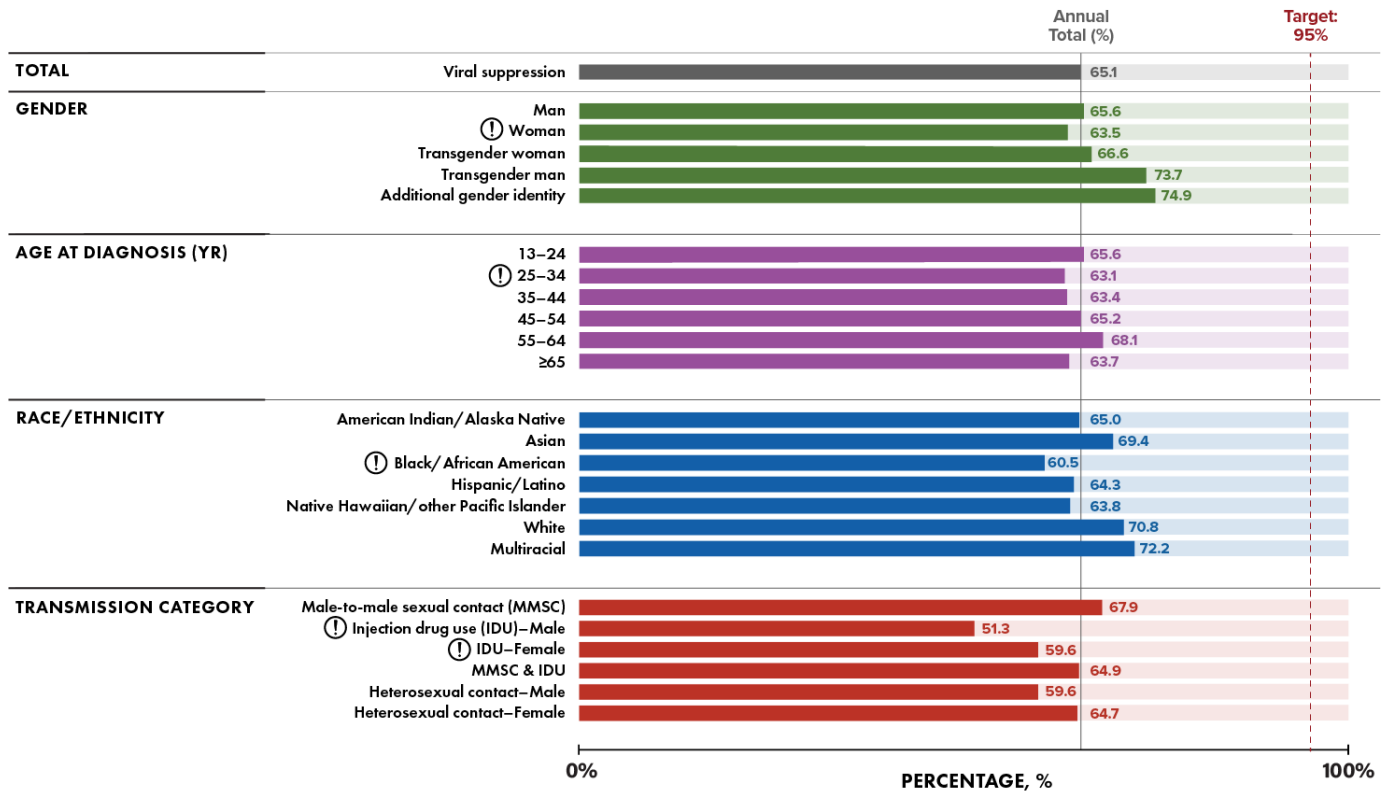
Note. Data for the year 2022 are preliminary and based on deaths reported to CDC as of December 2023. Race/ethnicity category for Asian persons includes Asian/Pacific Islander legacy cases. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentages of receipt of care and viral suppression.

Figure 10. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years living with diagnosed HIV, by sex assigned at birth and transmission category—48 states and the District of Columbia



Note. Data for the year 2022 are preliminary and based on deaths reported to CDC as of December 2023. Data have been statistically adjusted to account for missing transmission category. Groups with an exclamation point (!) had the lowest percentages of receipt of care and viral suppression by sex assigned at birth.

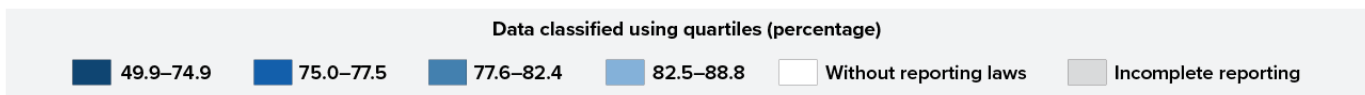
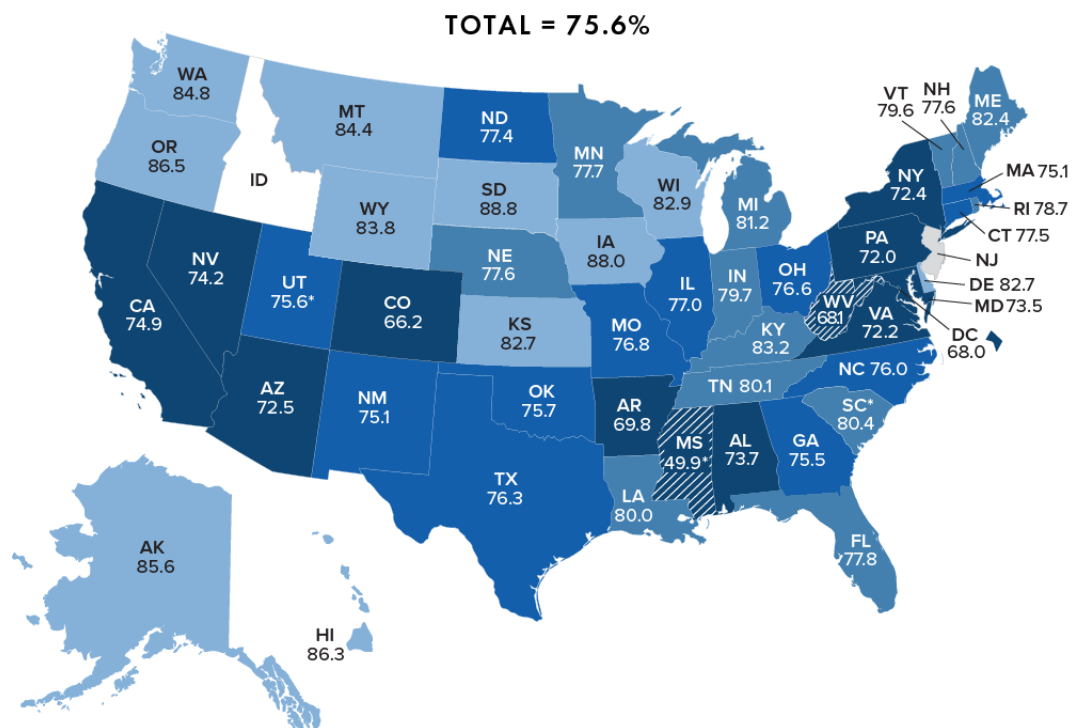
Figure 11. Viral suppression during 2022 among persons aged ≥13 years living with diagnosed HIV, by selected characteristics—48 states and the District of Columbia



Note. Data for the year 2022 are preliminary and based on deaths reported to CDC as of December 2023. Data have been statistically adjusted to account for transmission category. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentages of viral suppression.

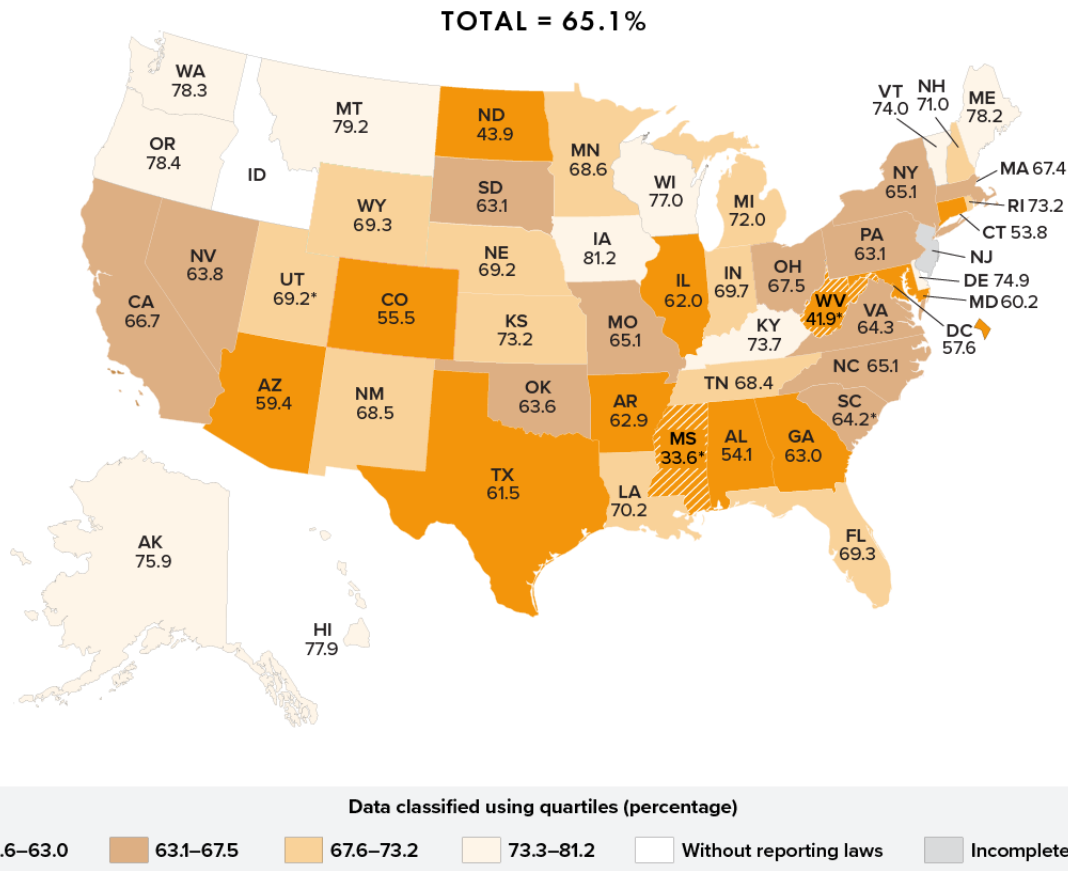
⚠ See Figure 12 for areas with the lowest percentages of persons who received HIV medical care and Figure 13 for areas with the lowest percentages of persons who had viral suppression. Please note that due to incomplete reporting of deaths for the year 2022, data for Mississippi, South Carolina, and Utah should be interpreted with caution.

Figure 12. Receipt of HIV medical care during 2022 among persons aged ≥13 years living with diagnosed HIV, by area of residence—48 states and the District of Columbia




Note. Data for the year 2022 are preliminary and based on deaths reported to CDC as of December 2023. Data for striped states should be interpreted with caution due to a lapse in laboratory reporting that occurred during the year 2022. An asterisk (*) indicates data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2022.

Figure 13. Viral suppression during 2022 among persons aged ≥13 years living with diagnosed HIV, by area of residence—48 states and the District of Columbia



Note. Data for the year 2022 are preliminary and based on deaths reported to CDC as of December 2023. An asterisk (*) indicates data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2022. Data for striped states should be interpreted with caution due to a lapse in laboratory reporting that occurred during the year 2022.

PREVALENCE-BASED HIV CARE CONTINUUM—OVERVIEW

 The Prevalence-based HIV Care Continuum describes each step of the continuum as a percentage of the total number of persons living with HIV (diagnosed or undiagnosed). The denominator is the estimated number of persons aged ≥13 years living with diagnosed or undiagnosed HIV at year-end 2022 (calculated by using the first CD4 test after HIV diagnosis and a CD4 depletion model indicating disease progression). The numerator is extrapolated from the 49 jurisdictions with complete CD4 and viral load reporting (apply the percentage from 49 jurisdictions for receipt of care, retention in care, and viral suppression to the total number of persons living with diagnosed HIV in the United States). For more information on Definitions and Data Specifications, see Technical Notes.

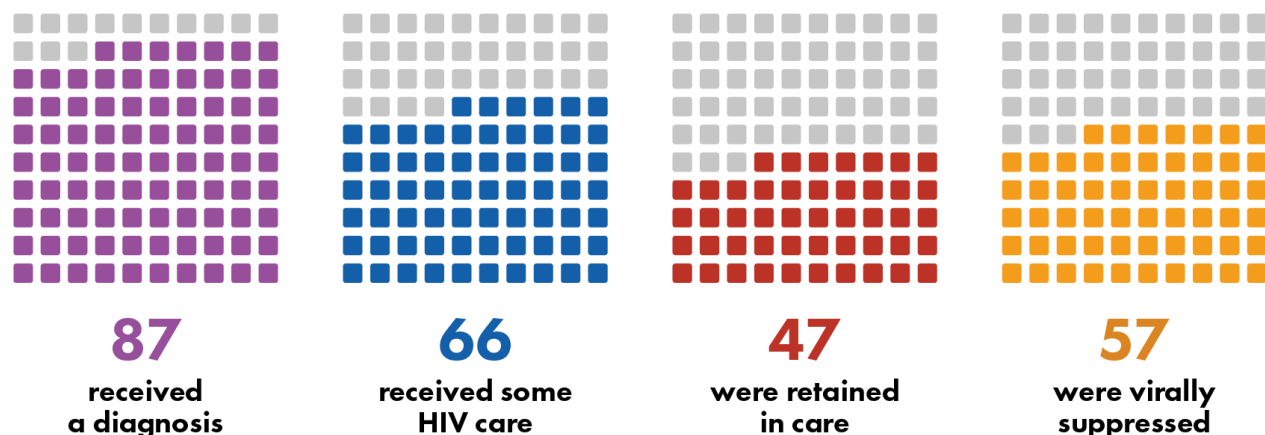
Uses of the prevalence-based continuum include monitoring testing efforts in the United States and demonstrating the importance of diagnosing HIV to achieve viral suppression, monitoring how the United States is doing among all persons living with HIV, and comparing United States data to other countries that monitor the continuum among all persons living with HIV.

Among the estimated 1.2 million persons living with HIV in the United States, 87% received a diagnosis, 66% received HIV medical care, 47% were retained in HIV medical care, and 57% had viral suppression in 2022 (Figure 14, Table 5). A higher percentage of women received a diagnosis, received HIV medical care in

2022, and were retained in HIV medical care than men (women: 90%, 68%, 48%; men: 86%, 66%, 47%). Equal percentages of women and men were virally suppressed (57%; Table 5).

Figure 14. Prevalence-based HIV care continuum for persons aged ≥13 years living with HIV (diagnosed or undiagnosed) at year-end 2022—United States

In 2022, for every 100 people overall living with HIV:



Note. Estimates were calculated by sex assigned at birth and derived from a CD4-based depletion model using HIV surveillance data. Estimates for year 2022 should be interpreted with caution due to adjustments made to the monthly distribution of reported diagnoses during this year to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. At year-end 2022, for every 100 persons overall living with HIV, 87 received a diagnosis, 66 received some HIV care, 47 were retained in care, and 57 had viral suppression.

Among persons living with HIV (diagnosed or undiagnosed), the lowest percentages that received a diagnosis, received HIV medical care, were retained in HIV medical care, and had viral suppression, by selected characteristics, were as follows (Figures 15–17, Table 5):

Receipt of diagnosis

- **Age group**—aged 13–24 years (56%)
- **Race/ethnicity**—American Indian/Alaska Native (77%)
- **SAAB and transmission category**
 - **Male**—heterosexual contact (85%)
 - **Female**—heterosexual contact (89%)

Receipt of care

- **Age group**—aged 13–24 years (45%)
- **Race/ethnicity**—American Indian/Alaska Native (59%)
- **SAAB and transmission category**
 - **Male**—IDU (56%)
 - **Female**—IDU (67%)

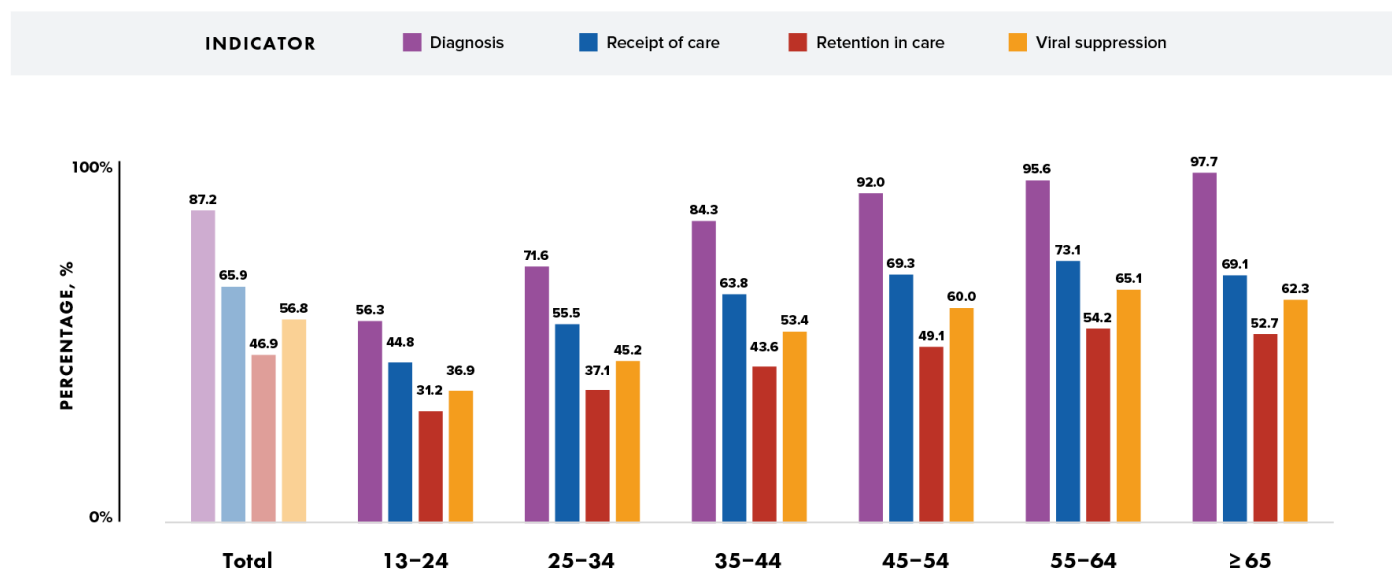
Retention in care

- **Age group**—aged 13–24 years (31%)
- **Race/ethnicity**—Native Hawaiian/other Pacific Islander (39%)
- **SAAB and transmission category**
 - **Male**—IDU (41%)
 - **Female**—IDU (47%)

Viral suppression

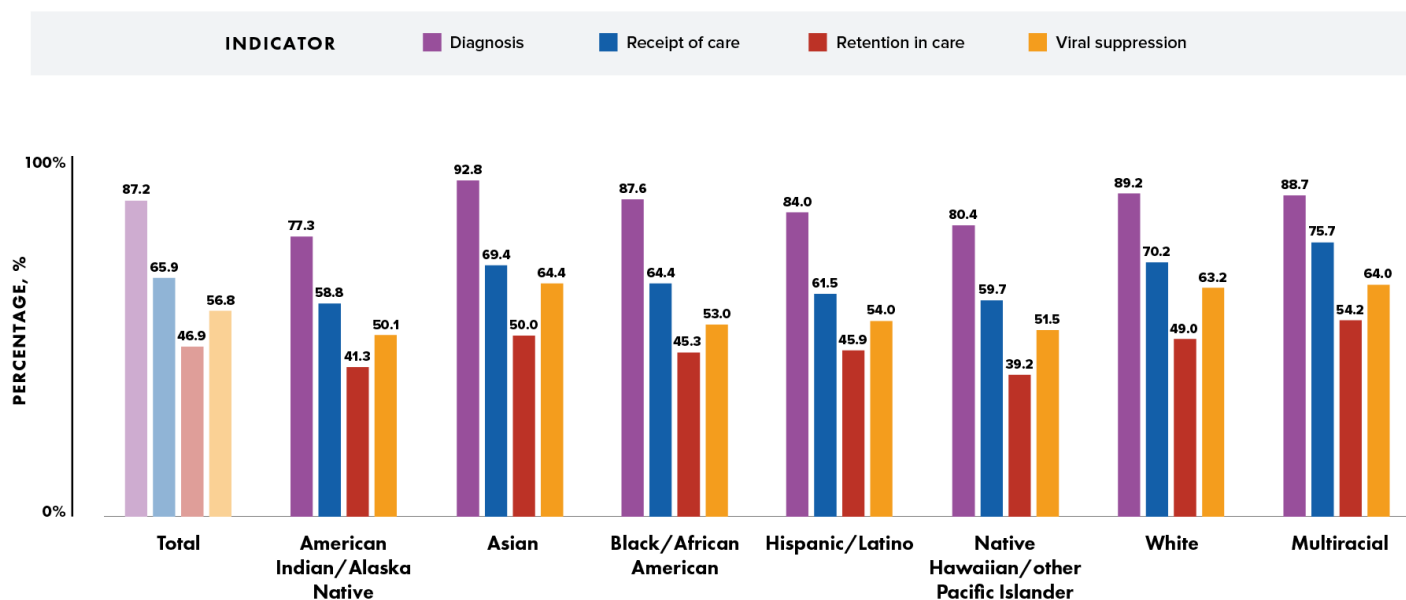
- **Age group**—aged 13–24 years (37%)
- **Race/ethnicity**—American Indian/Alaska Native (50%)
- **SAAB and transmission category**
 - **Male**—IDU (47%)
 - **Female**—IDU (55%)

Figure 15. Prevalence-based HIV care continuum for persons aged ≥ 13 years living with HIV (diagnosed or undiagnosed) at year-end 2022, by age group—United States



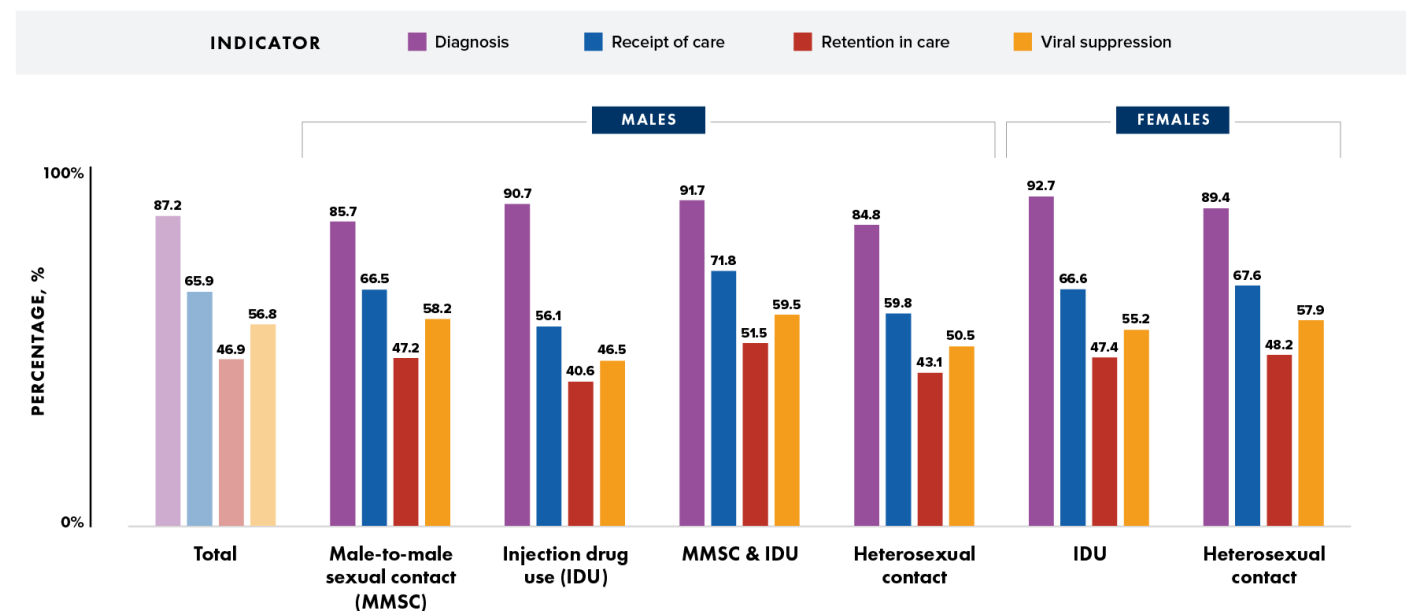
Note. Estimates were calculated by sex assigned at birth and derived by using HIV surveillance data and CD4 data for persons aged ≥ 13 years at diagnosis. Estimates for year 2022 should be interpreted with caution due to adjustments made to the CD4+ T-lymphocyte (CD4)-based depletion model to account for the impact of COVID-19 on HIV testing and diagnosis in the United States.

Figure 16. Prevalence-based HIV care continuum for persons aged ≥13 years living with HIV (diagnosed or undiagnosed) at year-end 2022, by race/ethnicity—United States



Note. Estimates were calculated by sex assigned at birth and derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis. Estimates for year 2022 should be interpreted with caution due to adjustments made to the CD4+ T-lymphocyte (CD4)-based depletion model to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Hispanic/Latino persons can be of any race.

Figure 17. Prevalence-based HIV care continuum for persons aged ≥13 years living with HIV (diagnosed or undiagnosed) at year-end 2022, based on sex assigned at birth, by transmission category—United States



Note. Estimates were calculated by sex assigned at birth and derived by using HIV surveillance data and CD4 data for persons aged ≥13 years at diagnosis. Estimates for year 2022 should be interpreted with caution due to adjustments made to the CD4+ T-lymphocyte (CD4)-based depletion model to account for the impact of COVID-19 on HIV testing and diagnosis in the United States.

STAGE 3 (AIDS) AT TIME OF HIV DIAGNOSIS, AND DEATH AND SURVIVAL AFTER HIV DIAGNOSIS

Data from the 50 states, the District of Columbia, and 6 U.S. territories and freely associated states (where indicated) were used for analyses of stage 3 (AIDS) at the time of HIV diagnosis (even when not all CD4 values are reportable), and deaths and survival of persons aged ≥ 13 years with diagnosed HIV.

Stage 3 (AIDS) classification at time of HIV diagnosis

Among the 37,601 persons who received an HIV diagnosis during 2022 in the United States, more than 1 in 5 persons (21%) received a late-stage diagnosis (stage 3 [AIDS]) (Table 6a).

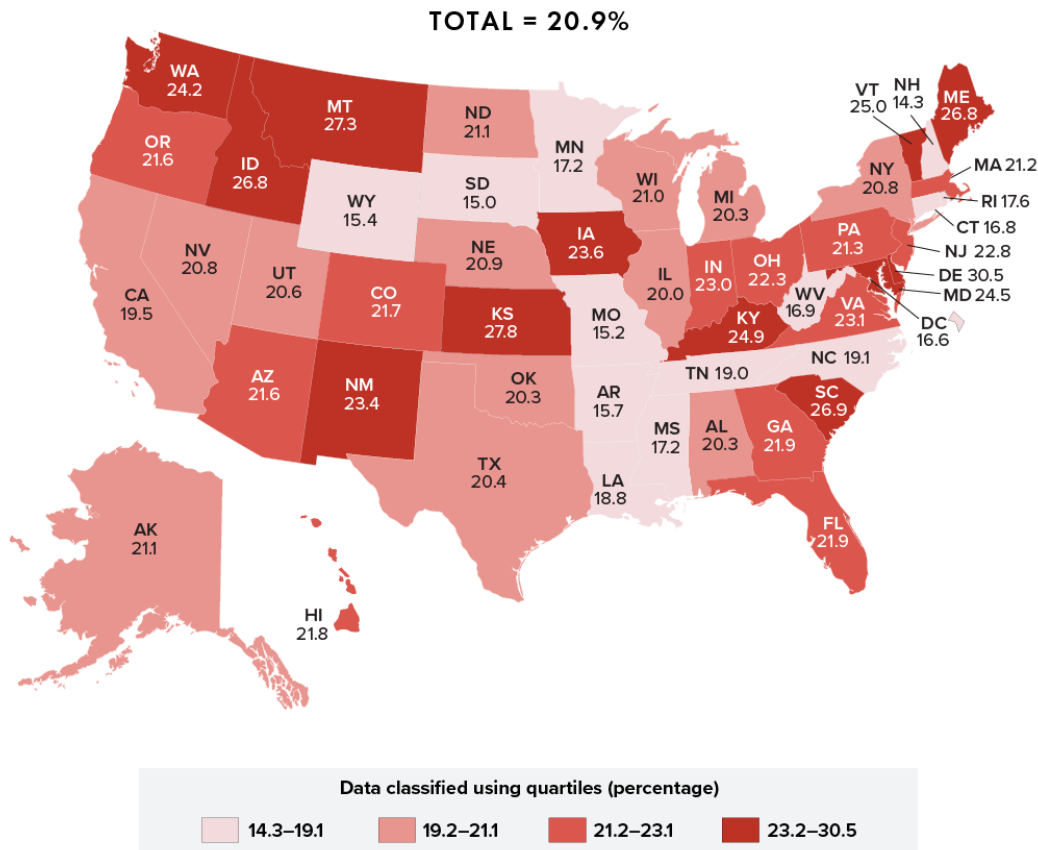
Highest percentages of a late-stage diagnosis were as follows (Table 6a):

- **Gender**—men and women (21%)
- **Age group**—aged ≥ 65 years (34%)
- **Race/ethnicity**—Asian (28%)
- **SAAB and transmission category**
 - **Male**—heterosexual contact (33%)
 - **Female**—heterosexual contact (21%)
- **Region of residence**—Northeast and South (21%)
- **Population area of residence**—nonmetropolitan areas (25%)



See Figure 18 for areas with the highest percentages of persons who received a late-stage diagnosis.

Figure 18. Stage 3 (AIDS) at time of HIV diagnosis during 2022 among persons aged ≥ 13 years, by area of residence—United States



Death (any cause)


Annual rates of death (any cause) among persons aged ≥ 13 years were calculated per 100,000 population and per 1,000 persons living with diagnosed HIV or with HIV disease ever classified as stage 3 (AIDS) in the United States. Age-adjusted rates per 100,000 population and per 1,000 persons living with diagnosed HIV or with HIV disease ever classified as stage 3 (AIDS) were also calculated and are presented by area of residence (Tables 7a–f). Please note that due to incomplete reporting of deaths for the year 2022, data for Guam, Mississippi, South Carolina, U.S. Virgin Islands, and Utah should be interpreted with caution.

In 2022, the age-adjusted rates in the United States were as follows:


- Among persons with diagnosed HIV—6.7 per 100,000 population and 17.0 per 1,000 persons living with diagnosed HIV (Table 7a)
- Among persons with stage 3 (AIDS) classification—5.0 per 100,000 population and 26.0 per 1,000 persons living with HIV disease ever classified as stage 3 (AIDS) (Table 7d)

Survival for >3 years after receiving an HIV diagnosis or a stage 3 (AIDS) classification

In the United States, survival for >3 years after receiving an HIV diagnosis was 95% and remained stable for persons with HIV diagnosed during 2014–2019 (Table 8a).

- Lowest percentages after receiving an HIV diagnosis during 2019—persons aged ≥ 55 years and persons with HIV attributed to injection drug use (Tables 8a). 

In the United States, survival for >3 years after receiving a stage 3 (AIDS) classification was below 90% and remained stable over time for persons with HIV disease classified as stage 3 (AIDS) that was diagnosed during 2014–2019 (Table 8d).

- Lowest percentages after receiving a stage 3 (AIDS) classification during 2019—each population (except for persons aged 13–34 years) and all areas of residence (except Wisconsin). 

PREEXPOSURE PROPHYLAXIS (PREP) COVERAGE

PrEP coverage is currently estimated by taking the number of persons prescribed PrEP (numerator) and dividing it by the estimated number of persons with indications for PrEP (denominator). Since the current methodology for estimating PrEP coverage was first published in 2018, CDC has cited limitations of both the numerator and denominator. For example, the number of persons prescribed PrEP is estimated by using data from the IQVIA pharmacy database based on an algorithm that includes FDA-approved drugs for PrEP. Although IQVIA records 94% of all prescriptions from retail pharmacies and 74% from mail-order outlets in the United States, data from closed health care systems are not included in the IQVIA data set. Therefore, the current PrEP numerator has represented minimum estimates of PrEP prescriptions. Additionally, race/ethnicity data in the IQVIA database are only available for <40% of persons prescribed PrEP each year. Regarding limitations of the current denominator, the number of persons who have indications for PrEP is estimated by using data from 3 sources: National HIV Surveillance System, National Health and Nutrition Examination Survey, and U.S. Census Bureau's American Community Survey. Each of these data sources have different schedules of data availability. As a result, the availability of a denominator often lags the availability of a numerator.

In March 2024, updated data from 2 closed-system sources were made available to CDC that can improve the representativeness of the number of persons prescribed PrEP in the United States. In the coming months, CDC also expects to have updates to the data sets currently used to estimate the number of persons with indications for PrEP. To ensure that PrEP coverage estimates are calculated using the best available data at the time of publication, CDC is pausing PrEP coverage reporting for one year. During this time, CDC will update PrEP coverage data sources and determine the best way to present PrEP coverage. CDC plans to resume PrEP coverage reporting in the next HIV Surveillance Supplemental (Monitoring) Report, currently scheduled for publication in June 2025. Until updated estimates are published, CDC advises against citing specific PrEP coverage data points and instead recommends referencing general trends and disparities.

Special Focus Profiles



Scientific advances in HIV treatment and prevention have led to tremendous progress in improving care for persons living with HIV and reducing new infections in the United States. Yet, longstanding disparities in HIV and care outcomes persist among some populations. Intersecting social, political, and structural determinants—such as poverty, unemployment, housing insecurity, stigma, discrimination, residential and rural segregation—create barriers that drive those disparities and impact health outcomes [13–16]. With these barriers, persons who do not know they have HIV do not get medical care or receive treatment and can unknowingly transmit HIV through sex or sharing needles, syringes, or other drug injection equipment [5]. This lack of awareness of HIV status is due to not getting tested, underestimation of personal risk, fewer opportunities to get tested, having a recent infection, and/or fear of HIV status disclosure and social isolation [3, 5, 17–19]. These factors heighten vulnerability to HIV and impact HIV care outcomes.

Addressing these barriers across both the HIV prevention cascade and the care-treatment continuum can lead to increased access to testing, increased access and uptake of PrEP and other preventive strategies, rapid linkage to HIV medical care and antiretroviral therapy (ART), higher levels of ART adherence, and sustained care with viral suppression [1, 3, 20]. Evidence-based strategies must be tailored, informed by persons with HIV, incorporate stigma reduction/smart disclosure strategies, and provide social support to address the unique needs of each population of interest [17].



Consistent, comprehensive, and sustainable health care with supportive services is critical to save lives and prevent community transmission.

The Special Focus Profiles highlight the distribution of HIV care outcomes among persons aged ≥ 13 years with diagnosed HIV (except perinatally acquired HIV) and identify potential gaps in these outcomes among 6 populations of interest to HIV prevention programs in state and local health departments: (1) Gay, Bisexual, and Other Men Who Have Sex With Men (MSM); (2) Persons Who Inject Drugs (PWID); (3) Transgender and Additional Gender Identity (AGI) Persons; (4) Women; (5) Persons Aged 13–24 Years and (6) Persons with Perinatally Acquired HIV. These populations of interest were informed by the NHAS [1]. Data by transmission category have been statistically adjusted. The statements in this section, unless otherwise indicated, are based on numbers of 12 or more. See suggested readings from the 2022 *HIV Surveillance Report* [5] for references and additional information including HIV risk behaviors, barriers to care, and prevention challenges for each population.

GAY, BISEXUAL, AND OTHER MEN WHO HAVE SEX WITH MEN


Social and structural issues—such as HIV stigma, homophobia, discrimination, poverty, and limited access to high-quality health care—make gay, bisexual, and other men who have sex with men (collectively referred to as MSM) of all races/ethnicities susceptible to multiple physical and mental health problems and can affect whether they seek and receive high-quality health services, including HIV testing, treatment, and other prevention services [21]. MSM are the population most affected by HIV in the United States [5].



Stage of disease at time of HIV diagnosis among MSM

In 2022, of 24,490 males (based on SAAB) with HIV attributed to male-to-male sexual contact (MMSC):

- 34% of infections were diagnosed at an earlier stage (stage 0 or 1) and 20% were classified as stage 3 (AIDS) at the time of diagnosis (Table 1a).
- For all races/ethnicities, higher percentages received a diagnosis at an earlier stage (0 or 1) compared to percentages with HIV classified as stage 3 (AIDS) (Table 1c).
- By age, a higher percentage of MSM aged ≥ 45 years received a late stage or stage 3 (AIDS) diagnosis than an earlier stage (stages 0 or 1) (Table 1d).

Highest percentages of MSM that received a late stage or stage 3 (AIDS) diagnosis by race/ethnicity and age: 


Race/Ethnicity and Age Group (Table 1d)

- Asian aged 35–64 years
- Black/African American aged ≥ 45 years
- Hispanic/Latino aged ≥ 45 years
- Native Hawaiian/other Pacific Islander aged 13–24 years
- White aged ≥ 45 years
- Multiracial aged ≥ 55 years

Linkage to HIV medical care within 1 month of diagnosis and viral suppression within 6 months of diagnosis among MSM

In 2022, of 24,490 males with HIV attributed to MMSC:

- Linkage to HIV medical care within 1 month of diagnosis: 83% (Table 2a)
- Viral suppression within 6 months of diagnosis: 71%

Lowest percentages: 

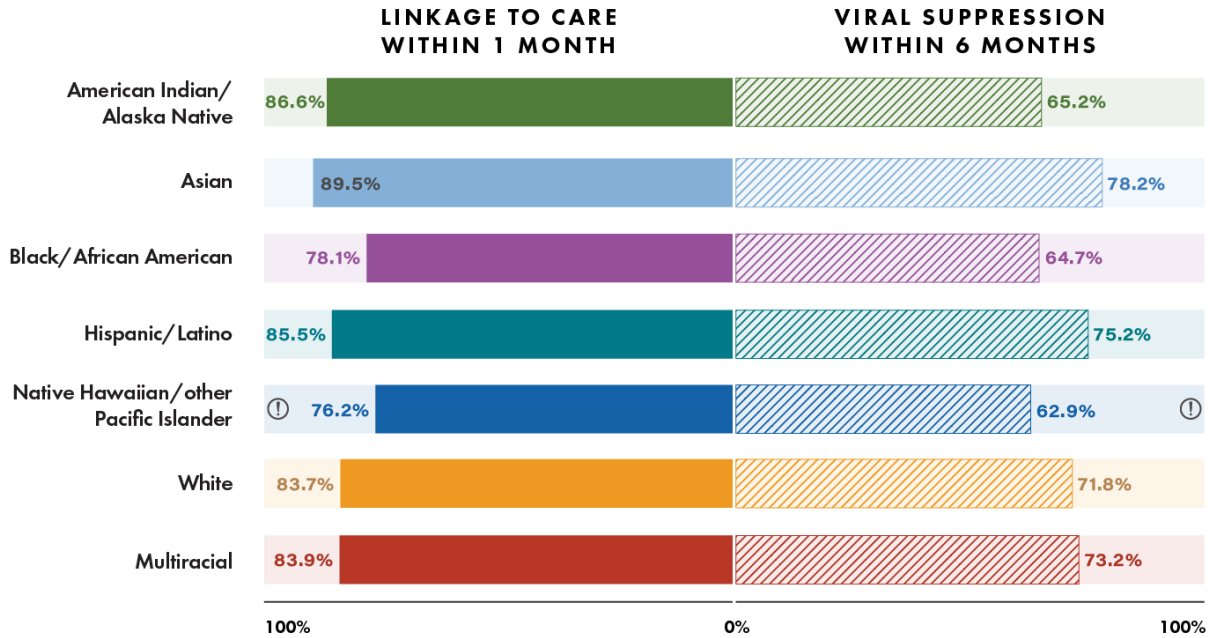
Race/Ethnicity (Figure 19, Table 2d)

- Linkage to HIV medical care within 1 month of diagnosis—Native Hawaiian/other Pacific Islander (76%)
- Viral suppression within 6 months of diagnosis—Native Hawaiian/other Pacific Islander (63%)

Race/Ethnicity and Age Group (Table 2d)

- Linkage to HIV medical care within 1 month of diagnosis—Native Hawaiian/other Pacific Islander aged 25–34 years (68%)
- Viral suppression within 6 months of diagnosis—Native Hawaiian/other Pacific Islander aged 13–24 years (46%)

Figure 19. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among males, based on sex assigned at birth, with HIV attributed to male-to-male sexual contact, by race/ethnicity—48 states and the District of Columbia




Note. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentage of linkage to care and viral suppression.

Receipt of HIV medical care and viral suppression among MSM

Of 593,383 males with HIV attributed to MMSC living with diagnosed HIV at year-end 2022

- Receipt of any HIV medical care: 78% (Tables 3a and 4a)
- Viral suppression at most recent test: 68%

Lowest percentages: 

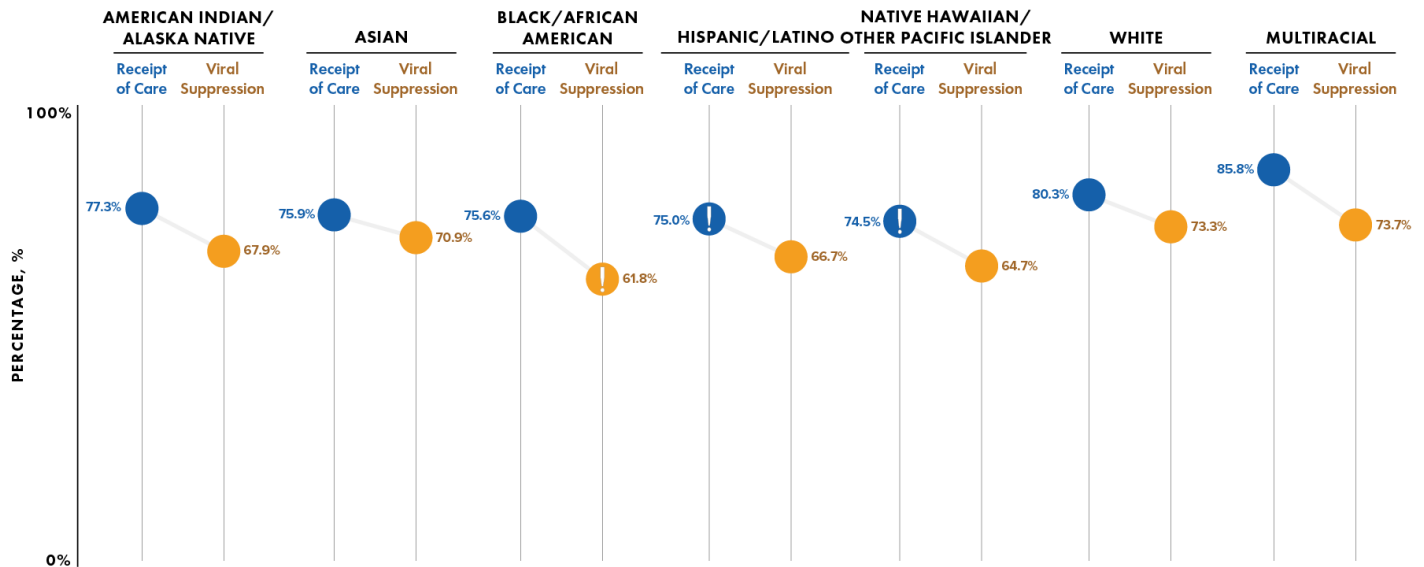
Race/Ethnicity (Figure 20, Table 3d)

- Receipt of any HIV medical care—Hispanic/Latino and Native Hawaiian/other Pacific Islander (75%)
- Viral suppression at most recent test—Black/African American (62%)

Race/Ethnicity and Age Group (Table 3d)

- Receipt of HIV medical care—American Indian/Alaska Native aged ≥ 65 years (67%)
- Viral suppression at most recent test—Black/African American aged ≥ 65 years (59%)

Figure 20. Receipt of HIV medical care and viral suppression during 2022 among males, based on sex assigned at birth, with HIV attributed to male-to-male sexual contact, by race/ethnicity—48 states and the District of Columbia



Note. Race/ethnicity category for Asian persons includes Asian/Pacific Islander legacy cases. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentage of receipt of care and viral suppression.

PERSONS WHO INJECT DRUGS

Infections attributed to injection drug use (IDU) in nonurban areas has created prevention challenges and brought attention to populations who would benefit from HIV prevention efforts [22]. In recent years, the opioid (including prescription and synthetic opioids) and heroin crises have led to increased numbers of PWID. HIV diagnoses among PWID have increased in the 50 states and the District of Columbia [23]. PWID can get HIV if they use and share needles, syringes, or other drug injection equipment (e.g., cookers) that someone with HIV has used. In 2022, HIV attributed to IDU accounted for about 1 in 14 HIV diagnoses in the United States [5].



Stage of disease at time of HIV diagnosis among PWID

In 2022, of 2,532 persons with HIV attributed to IDU, stage of disease at HIV diagnosis was as follows:


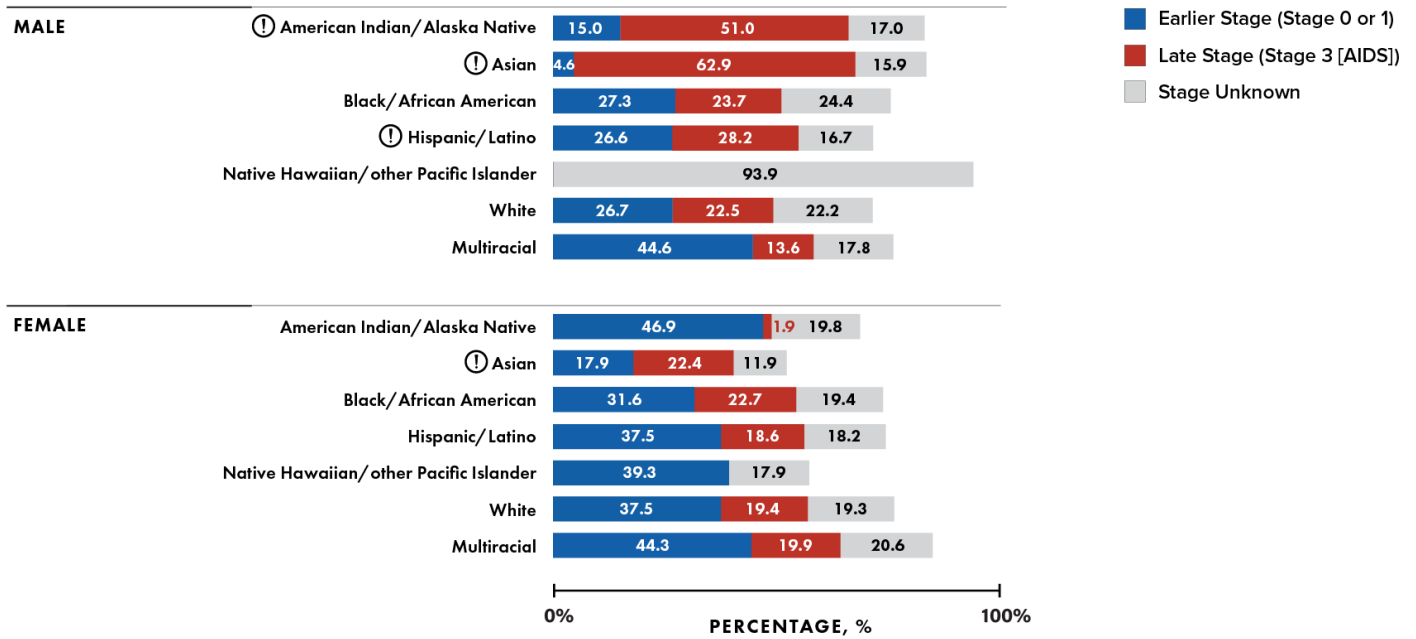
- Earlier stage (stage 0 or 1): 31% (Table 1a)
- Stage 3 (AIDS): 22%
- By SAAB and race/ethnicity, higher percentages of PWID who received a stage 3 (AIDS) classification compared to an earlier stage (0 or 1) diagnosis were as follows (Figure 21, Table 1c): 
 - **Male**—American Indian/Alaska Native, Asian, and Hispanic/Latino
 - **Female**—Asian

Figure 21. Earlier and late stage of disease at HIV diagnosis during 2022 among persons with HIV attributed to injection drug use, by sex assigned at birth and race/ethnicity—48 states and the District of Columbia



Note. Diagnosis of HIV may not be reported for some groups in 2022. Percentages do not sum to 100%, and percentages for Stage 2 are not presented. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) were the higher percentages of persons, by sex assigned at birth and race/ethnicity, with HIV attributed to injection drug use who received a stage 3 (AIDS) classification compared to an earlier stage (0 or 1) at diagnosis.

Linkage to HIV medical care within 1 month of diagnosis and viral suppression within 6 months of diagnosis among PWID

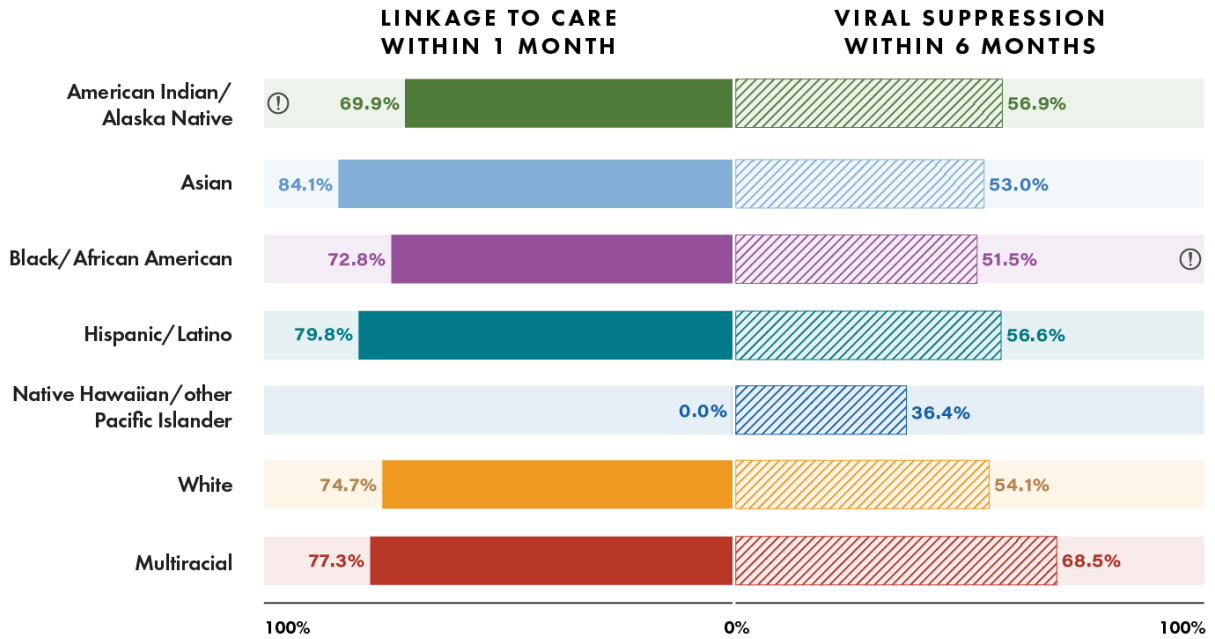
In 2022, of 2,532 persons with HIV attributed to IDU:

- Linkage to HIV medical care within 1 month of diagnosis: 76% (Table 2a)
- Viral suppression within 6 months of diagnosis: 55%

Lowest percentages by SAAB and race/ethnicity (Figure 22a/b, Table 2c): 

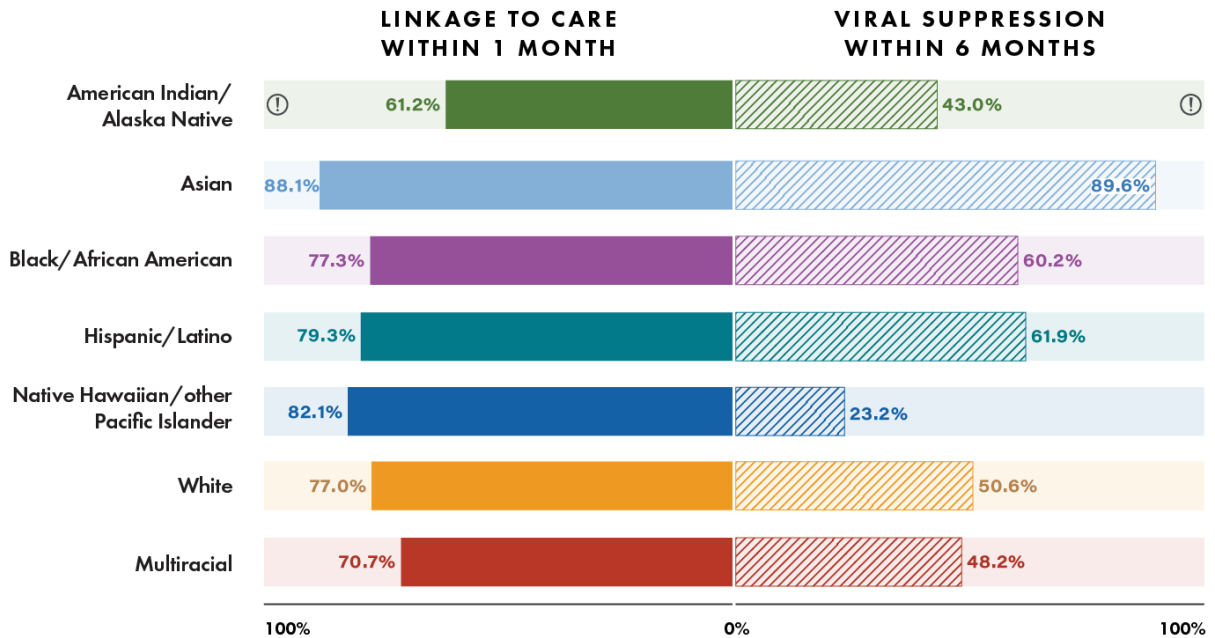
- **Male**
 - Linkage to HIV medical care within 1 month of diagnosis—American Indian/Alaska Native (70%)
 - Viral suppression within 6 months of diagnosis—Black/African American (51%)
- **Female**
 - Linkage to HIV medical care within 1 month of diagnosis—American Indian/Alaska Native (61%)
 - Viral suppression within 6 months of diagnosis—American Indian/Alaska Native (43%)

Figure 22a. Linkage to HIV medical care within 1 month and viral suppression within 6 months of diagnosis during 2022 among males, based on sex assigned at birth, with HIV attributed to injection drug use, by race/ethnicity—48 states and the District of Columbia



Note. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentage of linkage to care and viral suppression.

Figure 22b. Linkage to HIV medical care within 1 month and viral suppression within 6 months of diagnosis during 2022 among females, based on sex assigned at birth, with HIV attributed to injection drug use, by race/ethnicity—48 states and the District of Columbia




Note. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentage of receipt of care and viral suppression.

Receipt of HIV medical care and viral suppression among PWID

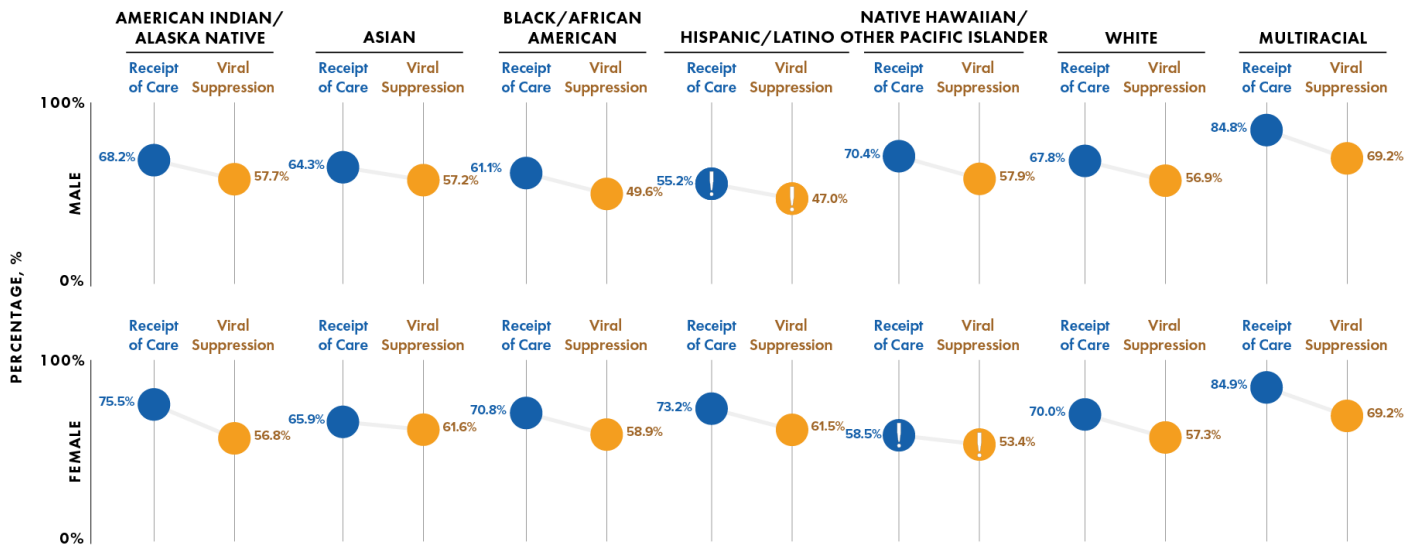
Of 101,292 persons with HIV attributed to IDU and living with diagnosed HIV at year-end 2022:

- Receipt of any HIV medical care: 66% (Tables 3a and 4a)
- Viral suppression at most recent test: 55%

Lowest percentages by SAAB and race/ethnicity were as follows (Figure 23, Table 3c): 

- **Male**
 - Receipt of any HIV medical care—Hispanic/Latino (55.2%)
 - Viral suppression at most recent test—Hispanic/Latino (47.0%)
- **Female**
 - Receipt of any HIV medical care—Native Hawaiian/other Pacific Islander (58.5%)
 - Viral suppression at most recent test—Native Hawaiian/other Pacific Islander (53.4%)

Figure 23. Receipt of HIV medical care and viral suppression during 2022 among persons with HIV attributed to injection drug use, by sex assigned at birth and race/ethnicity—48 states and the District of Columbia



Note. Data for the year 2022 are preliminary and based on deaths reported to CDC as of December 2023. Race/ethnicity category for Asian persons includes Asian/Pacific Islander legacy cases. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentage of receipt of care and viral suppression.

TRANSGENDER AND ADDITIONAL GENDER IDENTITY PERSONS

Transgender is an umbrella term that is used to identify persons whose sex assigned at birth does not match their current gender identity or expression. *Gender identity* refers to one’s internal understanding of one’s own gender, or the gender with which a person identifies [24]. *Additional gender identity* (AGI) is a term used to identify persons assigned “male” or “female” sex at birth who do not identify as male, female, transgender woman, or transgender man (e.g., those identifying as “nonbinary,” “gender queer,” or “two-spirit”) [24]. *Gender expression* is a term used to describe a person’s outward presentation of their gender [24]. Gender identity and sexual orientation are different facets of identity. Transgender and AGI persons are understudied in HIV prevention (e.g., preexposure prophylaxis [PrEP]) and treatment interventions and face numerous prevention challenges, including social rejection and exclusion and lack of public/provider knowledge about transgender and AGI issues [25].



Stage of disease at time of HIV diagnosis among transgender and AGI persons

In 2022, of 975 transgender and AGI persons with diagnosed HIV (Table 1e):

- 41% of infections were diagnosed at an earlier stage (stage 0 or 1) compared to 12% classified as stage 3 (AIDS) at the time of diagnosis.
- For all ages, races/ethnicities, and exposure categories, HIV was diagnosed at an earlier stage (0 or 1) compared to percentages classified as stage 3 (AIDS) at the time of diagnosis.

Linkage to HIV medical care within 1 month and viral suppression within 6 months of diagnosis among transgender and AGI persons

In 2022, of 975 transgender and AGI persons with diagnosed HIV (Table 2e):

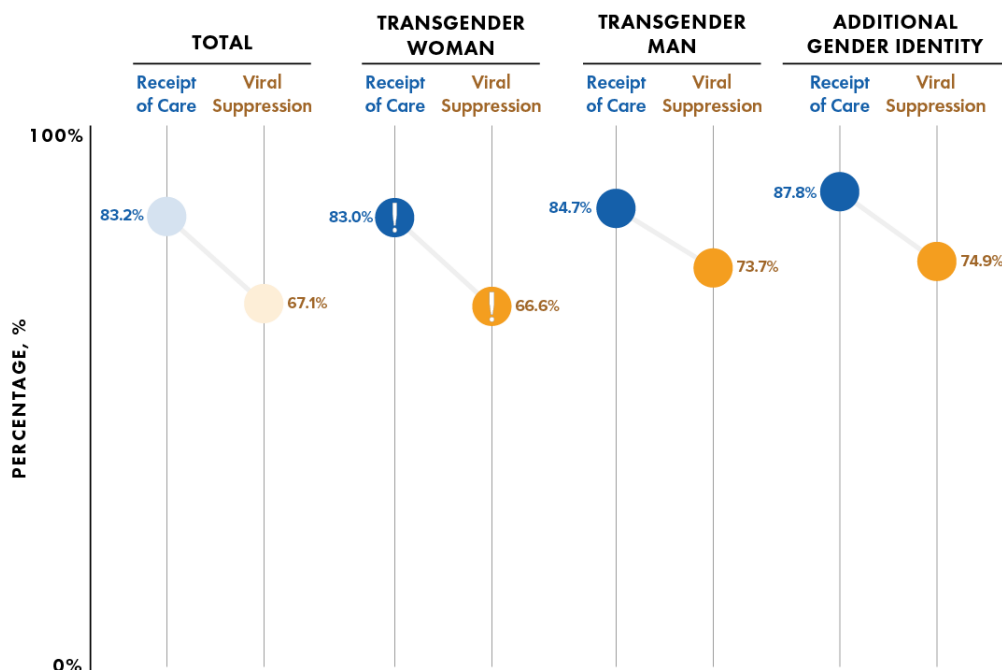
- Linkage to HIV medical care within 1 month of diagnosis: 84%
- Viral suppression within 6 months of diagnosis: 71%
- By gender identity, at least 82% were linked to HIV medical care, and 68% had viral suppression within 6 months.

Receipt of HIV medical care and viral suppression among transgender and AGI persons

Of 14,424 transgender and AGI persons living with diagnosed HIV at year-end 2022 (Table 3e):

- Receipt of any HIV medical care: 83%
- Viral suppression at most recent test: 67%
- By gender identity
 - At least 83% received HIV medical care and 67% had viral suppression (Figure 24)
 - Lowest percentage of receipt of care and viral suppression was among transgender women

Figure 24. Receipt of HIV medical care and viral suppression during 2022 among transgender and additional gender identity persons—48 states and the District of Columbia



Note. Data for the year 2022 are preliminary and based on deaths reported to CDC as of December 2023. Groups with an exclamation point (!) had the lowest percentage of receipt of care and viral suppression.

WOMEN (BASED ON SEX ASSIGNED AT BIRTH)

Social barriers such as racism, discrimination, and HIV stigma have a major impact on health and well-being. These factors prevent some women from seeking and receiving high-quality health care, including HIV testing, treatment, and other prevention services [26]. In addition to the social issues that affect some women, other factors can increase the chances of getting or transmitting HIV, such as a sex partner’s risk factors, knowledge of preexposure prophylaxis (PrEP), and knowledge of HIV status [26]. Additionally, women of color, particularly Black/African American, are disproportionately affected by HIV compared to other races/ethnicities [26].



Stage of disease at time of HIV diagnosis among women

In 2022, of 6,710 women with HIV, stage of disease at diagnosis was as follows (Table 1a):


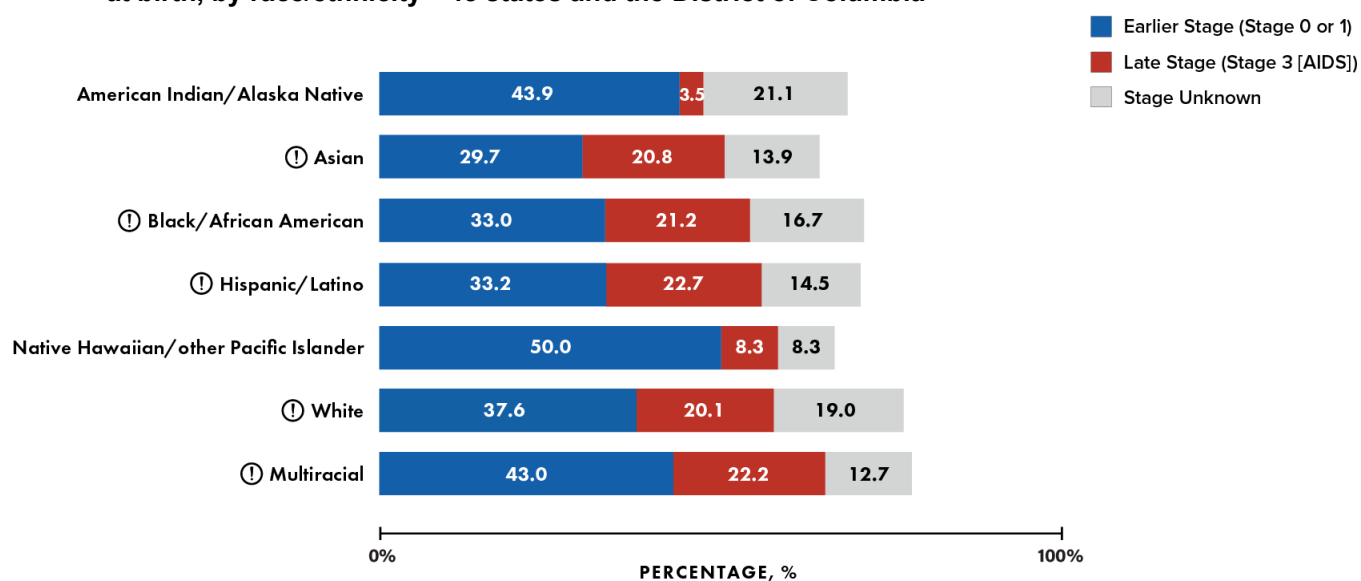
- Earlier stage (stage 0 or 1): 34%
- Stage 3 (AIDS): 21%
- By race/ethnicity, percentages ($\geq 20\%$) with stage 3 (AIDS) classification—Asian, Black/African American, Hispanic/Latino, White, and multiracial women (Figure 25, Table 1c). 

Figure 25. Earlier and late stage of disease at HIV diagnosis during 2022 among females, based on sex assigned at birth, by race/ethnicity—48 states and the District of Columbia




Note. Percentages do not sum to 100%, and percentages for Stage 2 are not presented. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had a high percentage ($\geq 20\%$) of stage 3 (AIDS) classification at diagnosis.

Linkage to HIV medical care within 1 month and viral suppression within 6 months of diagnosis among women

In 2022, of 6,710 women with HIV (Table 2a):

- Linkage to HIV medical care within 1 month of diagnosis: 80%
- Viral suppression within 6 months of diagnosis: 67%

Lowest percentages: 

Race/Ethnicity (Table 2c)

- Linkage to HIV medical care within 1 month of diagnosis—American Indian/Alaska Native (70%)
- Viral suppression within 6 months of diagnosis—Native Hawaiian/other Pacific Islander (50%)


Race/Ethnicity and Age Group (Table 2c)

- Linkage to HIV medical care within 1 month of diagnosis—American Indian/Alaska Native aged 25–34 years (62%)
- Viral suppression within 6 months of diagnosis—American Indian/Alaska Native aged 25–34 years (43%)

Receipt of HIV medical care and viral suppression among women

Of 229,653 women living with diagnosed HIV at year-end 2022:

- Receipt of any HIV medical care: 75% (Tables 3a and 4a)
- Viral suppression at most recent test: 64%

Lowest percentages: 

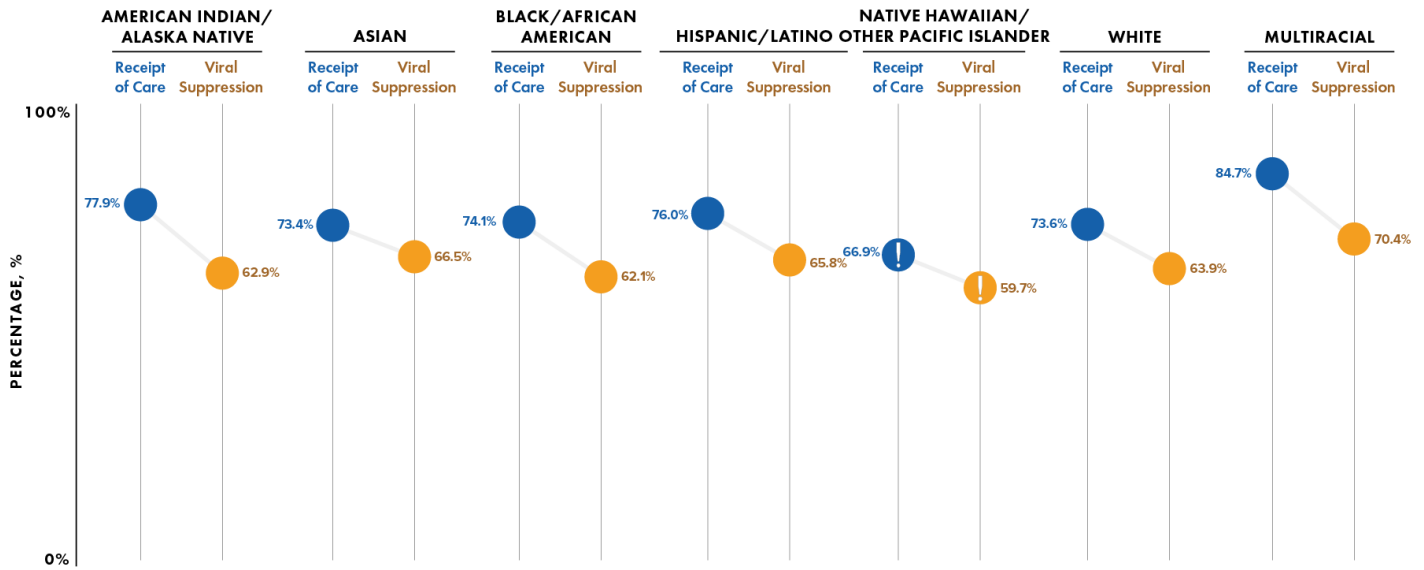
Race/Ethnicity (Figure 26, Table 3c)

- Receipt of any HIV medical care—Native Hawaiian/other Pacific Islander (67%)
- Viral suppression at most recent test—Native Hawaiian/other Pacific Islander (60%)

Race/Ethnicity and Age Group (Table 3c)

- Receipt of any HIV medical care—Native Hawaiian/other Pacific Islander aged 45–54 years (58%)
- Viral suppression at most recent test—American Indian/Alaska Native aged 25–34 years (46%)

Figure 26. Receipt of HIV medical care and viral suppression during 2022 among females, based on sex assigned at birth, by race/ethnicity—48 states and the District of Columbia



Note. Race/ethnicity category for Asian persons includes Asian/Pacific Islander legacy cases. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentage of receipt of care and viral suppression.

PERSONS AGED 13–24 YEARS

Addressing HIV among persons aged 13–24 years requires that they have access to the information and tools they need to make healthy decisions, reduce their risk factors, get treatment, and stay in care. Among persons living with HIV, they are the most likely of any age group to be living with undiagnosed HIV. For every 100 persons aged 13–24 years, 44 did not know their status. Lack of awareness of HIV status may be due to recent infection or low rates of HIV testing. Persons aged 13–24 years have high rates of sexually transmitted infections (STIs) and low rates of condom use, greatly increasing the chance of getting or transmitting HIV [27].



Stage of disease at time of HIV diagnosis among persons aged 13–24 years


In 2022, of 6,884 persons aged 13–24 years with HIV, stage of disease at the time of diagnosis was as follows:

- Earlier stage (stage 0 or 1): 38% (Table 1a)
- Stage 3 (AIDS) classification: 10%

Linkage to HIV medical care within 1 month and viral suppression within 6 months of diagnosis among persons aged 13–24 years

In 2022, of 6,884 persons aged 13–24 years with HIV:

- Linkage to HIV medical care within 1 month of diagnosis: 80% (Table 2a)
- Viral suppression within 6 months of diagnosis: 70%

Lowest percentages by SAAB and race/ethnicity were as follows (Table 2c): 

- Linkage to HIV medical care within 1 month of diagnosis—Native Hawaiian/other Pacific Islander males (69%) and Black/African American females (77%)
- Viral suppression within 6 months of diagnosis—Native Hawaiian/other Pacific Islander males (46%) and White females (67%)

Receipt of HIV medical care and viral suppression among persons aged 13–24 years

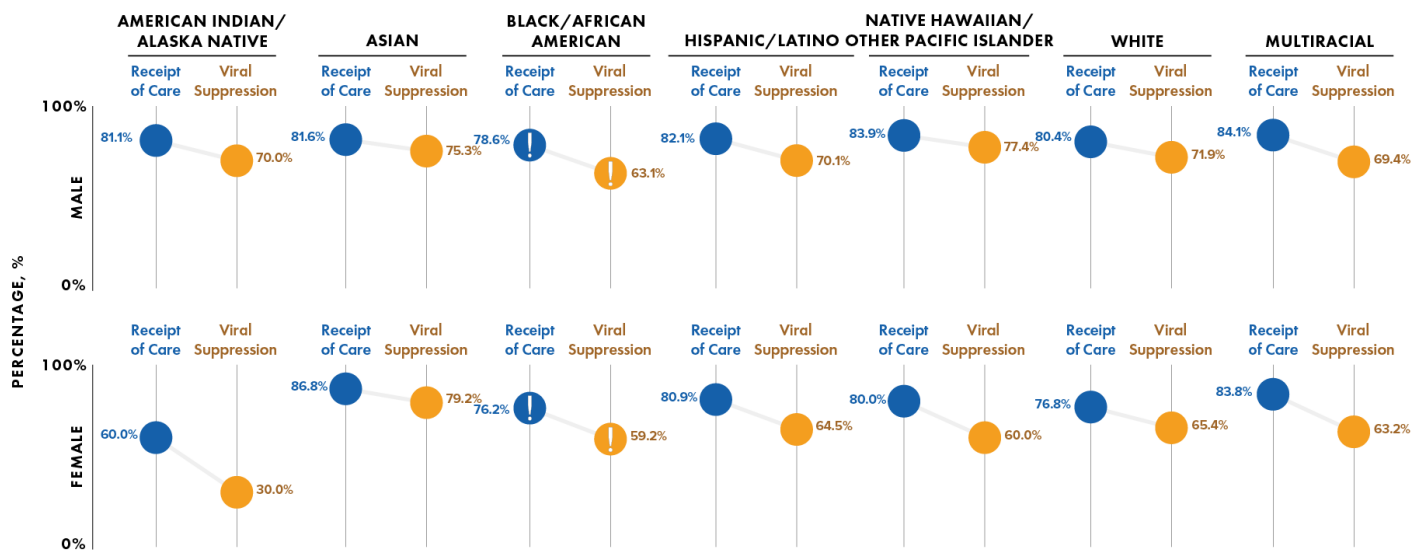
Of 27,725 persons aged 13–24 years living with diagnosed HIV at year-end 2022:

- Receipt of any HIV medical care: 80% (Tables 3a and 4a)
- Viral suppression at most recent test: 66%

Lowest percentages by SAAB and race/ethnicity (Figure 27, Table 3c): 

- Receipt of any HIV medical care—Black/African American males (79%) and Black/African American females (76%)
- Viral suppression at most recent test—Black/African American males (63%) and Black/African American females (59%)

Figure 27. Receipt of HIV medical care and viral suppression during 2022 among persons aged 13–24 years, by sex assigned at birth and race/ethnicity—48 states and the District of Columbia




Note. Data for the year 2022 are preliminary and based on deaths reported to CDC as of December 2023. Race/ethnicity category for Asian persons includes Asian/Pacific Islander legacy cases. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentage of receipt of care and viral suppression.

PERSONS WITH PERINATALLY ACQUIRED HIV

To make informed decisions about ART to reduce perinatal transmission of HIV to infants, pregnant persons should know their HIV status. In 1995, the first recommendations for HIV counseling and voluntary testing for pregnant persons were published [28]. In 2006, CDC released revised recommendations for HIV testing which specified that opt-out HIV screening should be included in the routine panel of prenatal screening tests for all pregnant persons [29]. Because of delays in the reporting to NHSS of births and HIV attributed to perinatal exposure, as well as the dynamic nature of surveillance case reporting and investigation, these numbers may be subject to change. Please use caution when interpreting perinatally acquired HIV numbers. Additionally, numbers less than 12, and rates based on these numbers, should be interpreted with caution.



In 2022, the overall annual rate of perinatally acquired HIV in the United States was 1.1 per 100,000 live births (regardless of place of birth).

- The rate among births for Black/African American persons (5.5) was 5.0 times the annual rate of 1.1 (Table 9a). 

Among infants born in the United States in 2022, the overall annual rate of perinatally acquired HIV in the United States was 1.1.


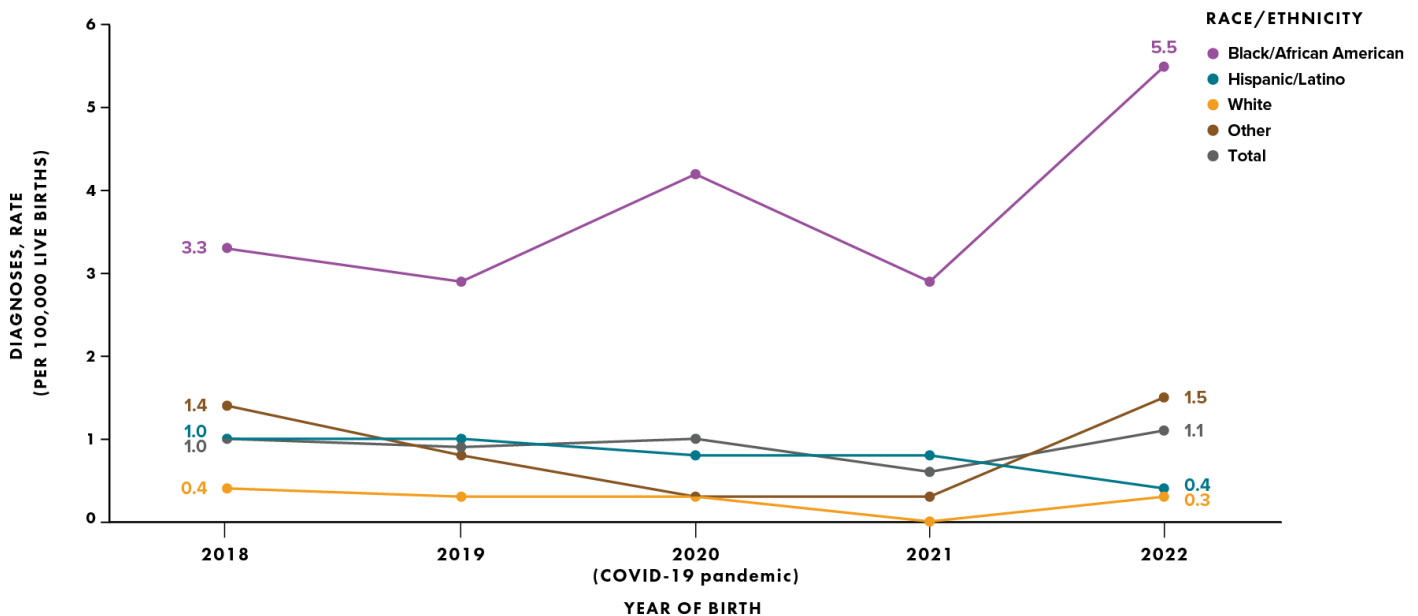
- The rate among births for Black/African American persons (5.5) was 5.0 times the annual rate of 1.1 (Figure 28, Table 9b). 

Figure 28. Perinatally acquired HIV among persons born in the United States, by year of birth and birthing person's race/ethnicity, 2018–2022—United States



Note. Live-birth data reflect race/ethnicity of the infant's birthing person. The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022. Race/ethnicity category for Other includes American Indian/Alaska Native, Asian, Native Hawaiian/other Pacific Islander, and multiracial persons.

2022 STATUS AND DISPARITIES IN LINKAGE TO CARE AND VIRAL SUPPRESSION

Achieving equitable health in HIV-related outcomes can reduce new HIV infections and eliminate HIV-related disparities in the United States consistent with the goals of Healthy People 2030, NHAS, the EHE initiative, and the Playbook. This section presents the status and HIV-related disparities for 2 favorable care outcomes: (1) the percentage of persons with diagnosed HIV who were linked to care within 1 month of diagnosis during 2022, and (2) the percentage of persons with diagnosed HIV who had viral suppression at the most recent test during 2022. See Technical Notes for additional information on disparity measures.

2022 Status and Disparities in Linkage to HIV Medical Care Within 1 Month of HIV Diagnosis

Ending
the
HIV
Epidemic

Overall Goal: Increase the percentage of people with diagnosed HIV who are linked to HIV medical care to at least 95% by 2025 and remain at 95% by 2030.



In 2022, 82% of persons with an HIV diagnosis were linked to HIV medical care within 1 month of diagnosis (Table 2a).

- Overall percentage difference was 13% from the 95% EHE target
- Overall percentage ratio was 0.863 times the 95% EHE target
- Percentages varied by race/ethnicity, transmission category (SAAB), region of residence, and population area of residence (Table 2a)


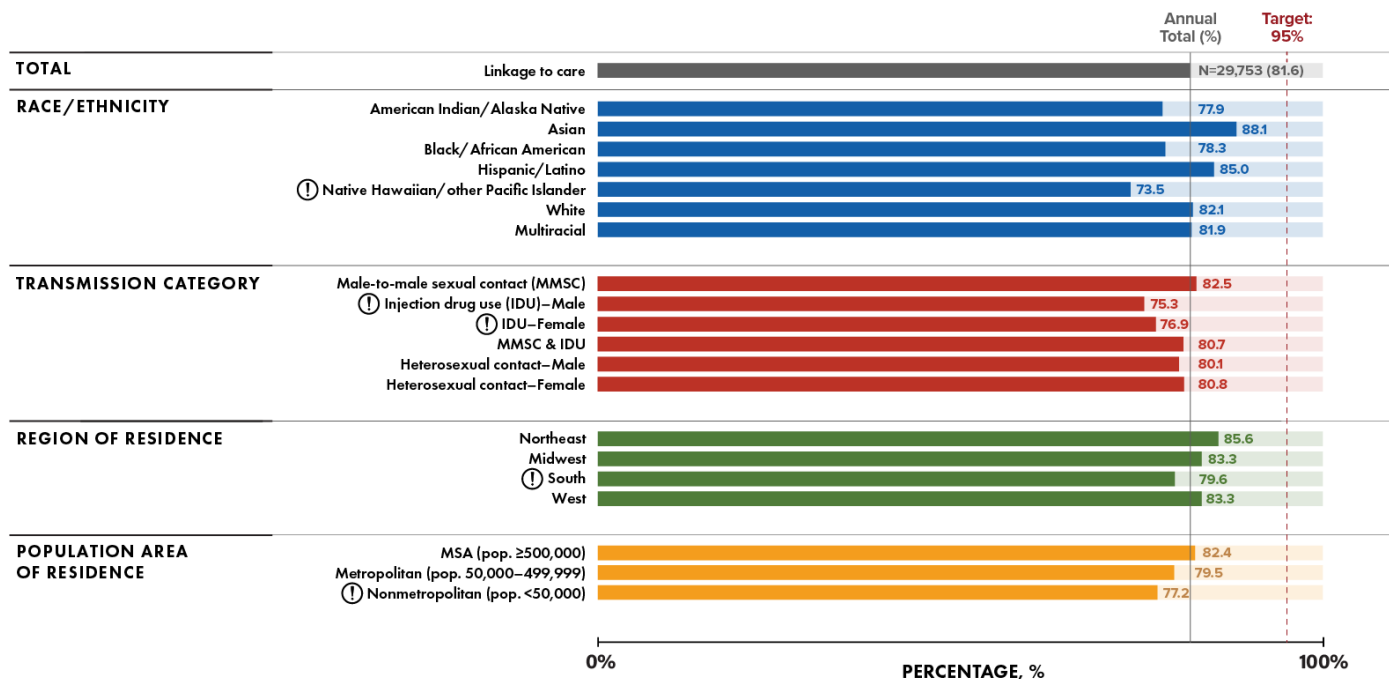
 See Figure 29 for persons and areas with the lowest percentages of linkage to care within 1 month of HIV diagnosis.

Figure 29. Status of linkage to HIV medical care within 1 month of HIV diagnosis during 2022 among persons aged ≥13 years, by selected characteristics—48 states and the District of Columbia



Note. Data have been statistically adjusted to account for missing transmission category. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentages of linkage to care.




Among 36,470 persons with HIV diagnosed during 2022, no demographic group or group with HIV attributed to any of the transmission categories met the forthcoming 2025 EHE target of 95% of persons linked to HIV medical care within 1 month of diagnosis (Figure 29, Table 2a).

Disparities by race/ethnicity:

- Highest linkage to care: Asian persons (88%) (Figure 29, Table 2a)
- Lowest linkage to care: Native Hawaiian/other Pacific Islander persons (74%)
- Average linkage to care of all other racial/ethnic groups (excluding the percentage for Asian persons): 80%.
- **Absolute disparities**
 - **Absolute (maximal) percentage difference:**
 - Closest to 95% target: Asian persons had a group percentage higher than the overall linkage to care outcome of 82%.
 - Farthest from 95% target: Native Hawaiian/other Pacific Islander persons had a group percentage lower than the overall linkage to care outcome.
 - Difference between Asian persons and Native Hawaiian/other Pacific Islander persons was 14%.
 - Difference between Asian persons and the average of the percentages for all other racial/ethnic groups was 8%.
- **Relative disparities**
 - **Summary percentage ratio:**
 - Percentages for Asian and Native Hawaiian/other Pacific Islander persons were 0.926 and 0.779 times the 95% target, respectively.
 - Average percentage for all other racial/ethnic groups was 0.909 times the percentage for Asian persons.
 - **Maximal percentage ratio:**
 - Percentage for Asian persons was 1.189 times the percentage for Native Hawaiian/other Pacific Islander persons.

Disparities by transmission category (SAAB):

- Highest linkage to care: Males with HIV attributed to MMSC (83%) (Figure 29, Table 2a)
- Lowest linkage to care: Males with HIV attributed to IDU (75%) 
- Average linkage to care of all other transmission categories (excluding males with HIV attributed to MMSC): 79%
- **Absolute disparities**
 - **Absolute (maximal) percentage difference:**
 - Closest to the 95% target: Males with HIV attributed to MMSC had a percentage higher than the overall linkage to care outcome of 82%.
 - Farthest from the 95% target: Males with HIV attributed to IDU had a percentage lower than the overall linkage to care outcome.
 - Difference between males with HIV attributed to MMSC and males with HIV attributed to IDU was 8%.
 - Difference between males with HIV attributed to MMSC and the average of the percentages for all other transmission categories was 4%.
- **Relative disparities**
 - **Summary percentage ratio:**
 - Percentages for males with HIV attributed to MMSC and males with HIV attributed to IDU were 0.874 and 0.789 times the 95% target, respectively.
 - Average percentage for all other transmission categories was 0.952 times the percentage for males with HIV attributed to MMSC.
 - **Maximal percentage ratio:**
 - Percentage for males with HIV attributed to MMSC was 1.107 times the percentage for males with HIV attributed to IDU.

Disparities by region of residence:

- Highest linkage to care: Northeast (86%) (Figure 30, Table 2b)
- Lowest linkage to care: South (80%)
- Average linkage to care of all other regions (excluding the percentage for persons who resided in the Northeast): 82%.
- **Absolute disparities**
 - **Absolute (maximal) percentage difference:**
 - Closest to the 95% target: Northeast had a percentage higher than the overall linkage to care outcome of 82%.
 - Farthest from the 95% target: South had a percentage lower than the overall linkage to care outcome.
 - Difference between the Northeast and the South was 6%.
 - Difference between the Northeast and the average of the percentages for all other regions was 4%.
- **Relative disparities**
 - **Summary percentage ratio:**
 - Percentages for the Northeast and the South were 0.905 and 0.842 times the 95% target, respectively.
 - Average percentage for all other geographic areas was 0.953 times the percentage for the Northeast.
 - **Maximal percentage ratio:**
 - Percentage for the Northeast was 1.075 times the percentage for the South.

Disparities by population area of residence (although linkage to care was similar for all geographic areas):

- Highest linkage to care: Metropolitan statistical areas (MSA, 82%) (Figure 29, Table 2a)
- Lowest linkage to care: Nonmetropolitan areas (77%)
- Average linkage to care for all other geographic areas (excluding the percentage for MSAs): 78%.
- **Absolute disparities**
 - **Absolute (maximal) percentage difference:**
 - Closest to the 95% target: MSAs had the same percentage as the overall linkage to care outcome of 82%.
 - Farthest from the 95% target: Nonmetropolitan areas had a percentage lower than the overall linkage to care outcome.
 - Difference between MSAs and nonmetropolitan areas was 5%.
 - Difference between MSAs and the average of the percentages for all other geographic areas was 4%.
- **Relative disparities**
 - **Summary percentage ratio:**
 - Percentages for MSAs and nonmetropolitan areas were 0.863 and 0.811 times the 95% target, respectively.
 - Average percentage for all other geographic areas was 0.951 times the percentage for MSAs.
 - **Maximal percentage ratio:**
 - Percentage for MSAs was 1.065 times the percentage for nonmetropolitan areas.

2022 Status and Disparities in Viral Suppression

**Ending
the
HIV
Epidemic**

Overall Goal: Increase the percentage of people with diagnosed HIV who are virally suppressed to at least 95% by 2025 and remain at 95% by 2030.



At year-end 2022, 65% of persons living with diagnosed HIV had viral suppression at the most recent viral load test (Table 4a).

- Overall percentage difference was 30% from the 95% EHE target
- Overall percentage ratio was 0.684 times the 95% EHE target
- Percentages varied by race/ethnicity, transmission category (SAAB), region of residence, and population area of residence (Table 4a)


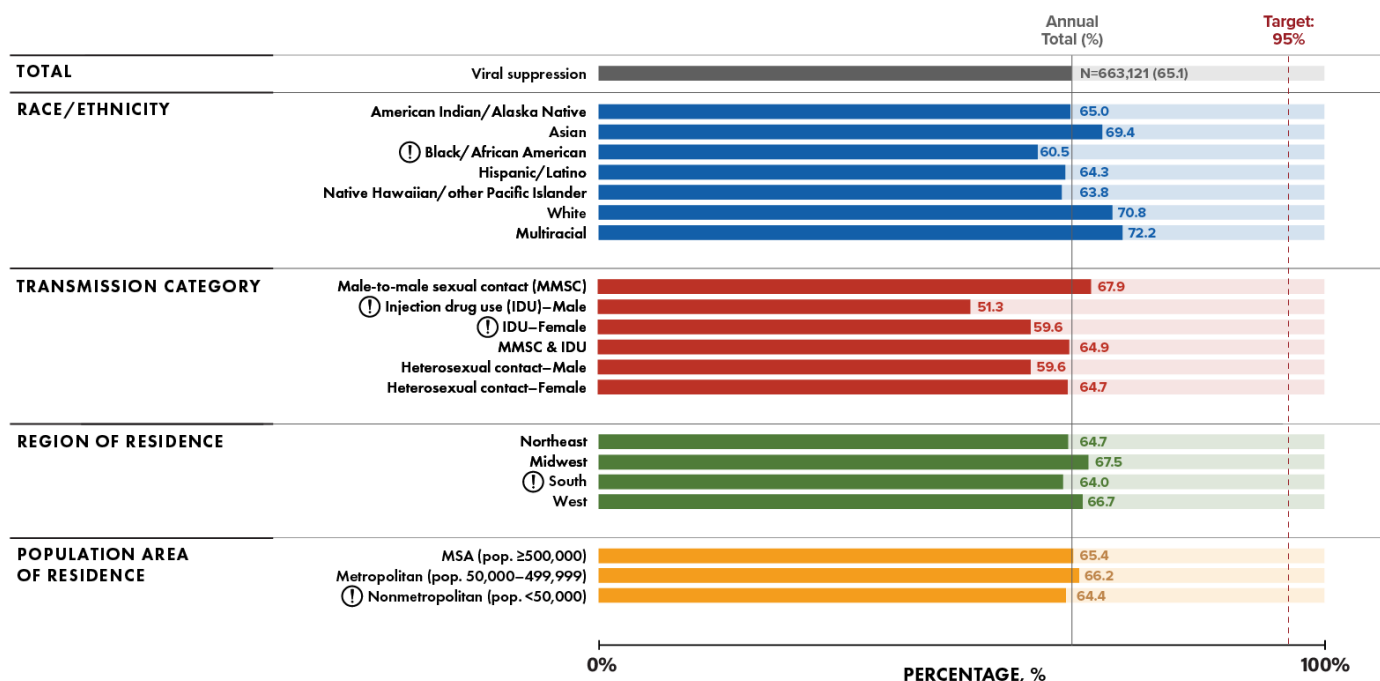
 See Figure 30 for persons and areas with the lowest percentages of viral suppression at the most recent viral load test.

Figure 30. Status of viral suppression during 2022 among persons aged ≥13 years living with diagnosed HIV, by selected characteristics—48 states and District of Columbia




Note. Data have been statistically adjusted to account for missing transmission category. Hispanic/Latino persons can be of any race. Groups with an exclamation point (!) had the lowest percentages of viral suppression.

Among 1,018,430 persons aged ≥13 years living with diagnosed HIV at year-end 2022, no demographic group or group with HIV attributed to any of the transmission categories met the forthcoming EHE target of 95% of persons with viral suppression by 2025 (Figure 30, Table 4a).


Disparities by race/ethnicity:

- Highest viral suppression: Multiracial persons (72%) (Figure 30, Table 4a)
- Lowest viral suppression: Black/African American persons (61%)
- Average viral suppression of all other racial/ethnic groups (excluding the percentage for multiracial persons): 67%
- **Absolute disparities**
 - **Absolute (maximal) percentage difference:**
 - Closest to 95% target: Multiracial persons had a group percentage higher than the overall viral suppression outcome of 65%.
 - Farthest from 95% target: Black/African American persons had a group percentage lower than the overall viral suppression outcome.
 - Difference between multiracial persons and Black/African American persons was 11%.
 - Difference between multiracial persons and the average of the percentages for all other racial/ethnic groups was 6%.
- **Relative disparities**
 - **Summary percentage ratio:**
 - Percentages for multiracial and Black/African American persons were 0.758 and 0.642 times the 95% target, respectively.
 - Average percentage for all other racial/ethnic groups was 0.931 times the percentage for multiracial persons.
 - **Maximal percentage ratio:**
 - Percentage for multiracial persons was 1.180 times the percentage for Black/African American persons.


Disparities by transmission category (SAAB):

- Highest viral suppression: Males with HIV attributed to MMSC (68%) (Figure 30, Table 4a)
- Lowest viral suppression: Males with HIV attributed to IDU (51%) 
- Average viral suppression of all other transmission categories (excluding the percentage for males with HIV attributed to MMSC): 60%
- **Absolute disparities**
 - **Absolute (maximal) percentage difference:**
 - Closest to the 95% target: Males with HIV attributed to MMSC had a percentage higher than the overall viral suppression outcome of 65%.
 - Farthest from the 95% target: Males with HIV attributed to IDU had a percentage lower than the overall viral suppression outcome.
 - Difference between males with HIV attributed to MMSC and males with HIV attributed to IDU was 17%.
 - Difference between males with HIV attributed to MMSC and the average of the percentages attributed to all other transmission categories was 8%.
- **Relative disparities**
 - **Summary percentage ratio:**
 - Percentages for males with HIV attributed to MMSC and males with HIV attributed to IDU were 0.716 and 0.537 times the 95% target, respectively.
 - Average percentage for all other transmission categories was 0.882 times the percentage for MMSC.
 - **Maximal percentage ratio:**
 - Percentage for males with HIV attributed to MMSC was 1.333 times the percentage for males with HIV attributed to IDU.

Disparities by region of residence:

- Highest viral suppression: Midwest (68%) (Figure 30, Table 4b)
- Lowest viral suppression: South (64%) 
- Average viral suppression of all other regions (excluding the percentage of persons residing in the Midwest): 65%
- **Absolute disparities**
 - **Absolute (maximal) percentage difference:**
 - Closest to the 95% target: Midwest had a percentage higher than the overall viral suppression outcome of 65%.
 - Farthest from the 95% target: South had a percentage lower than the overall viral suppression outcome.
 - Difference between the Midwest and the South was 4%.
 - Difference between the Midwest and the average of the percentages for all other regions was 3%.
- **Relative disparities**
 - **Summary percentage ratio:**
 - Percentages for the Midwest and the South were 0.716 and 0.674 times the 95% target, respectively.
 - Average percentage for all other geographic areas was 0.956 times the percentage for the Midwest.
 - **Maximal percentage ratio:**
 - Percentage for the Midwest was 1.063 times the percentage for the South.

Disparities by population area of residence (although viral suppression was similar for all geographic areas):

- Highest viral suppression: Metropolitan areas (66%) (Figure 30, Table 4a)
- Lowest viral suppression: Nonmetropolitan areas (64%) 
- Average viral suppression for all other geographic areas (excluding the percentage for persons residing in metropolitan areas): 65%.
- **Absolute disparities**
 - **Absolute (maximal) percentage difference:**
 - Closest to the 95% target: Metropolitan areas had a percentage higher than the overall viral suppression outcome of 65%.
 - Farthest from the 95% target: Nonmetropolitan areas had a percentage lower than the overall viral suppression outcome.
 - Difference between metropolitan and nonmetropolitan areas was 2%.
 - Difference between metropolitan areas and the average of the percentages for all other geographic areas was 1%.
- **Relative disparities**
 - **Summary percentage ratio:**
 - Percentages for metropolitan areas and nonmetropolitan areas were 0.695 and 0.674 times the 95% target, respectively.
 - Average percentage for all other geographic areas was 0.985 times the percentage for metropolitan areas.
 - **Maximal percentage ratio:**
 - Percentage for metropolitan areas was 1.031 times the percentage for nonmetropolitan areas.

Technical Notes

A. SURVEILLANCE OF HIV INFECTION OVERVIEW

This report includes HIV surveillance data through 2022 and reported to CDC's NHSS through December 31, 2023. The data are from 50 states, the District of Columbia, and 6 U.S. territories and freely associated states (American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the Republic of Palau, and the U.S. Virgin Islands) in which laws or regulations require confidential reporting to the jurisdiction (not to CDC), by name, for all persons (adults, adolescents, and children) with confirmed HIV diagnoses. Names and other directly identifying information are removed before reporting case information to CDC. Although AIDS cases have been reported to CDC since 1981, the date of implementation of HIV infection reporting has differed from jurisdiction to jurisdiction. All states, the District of Columbia, and 6 U.S. territories and freely associated states had fully implemented name-based HIV infection reporting by April 2008.

All data presented in this report are considered provisional (based on a ≥ 12 -month reporting delay) and subject to change as additional reports are submitted for HIV cases and HIV surveillance data quality improves with further evaluation of the surveillance system and data repository. Data are provisional and based on a 12-month reporting delay to allow sufficient time for HIV-related laboratory results and deaths to be reported to CDC. Because reporting delays can impact the reliability of data presented in this report, caution should be applied when interpreting the results. Data should also be interpreted with caution where numbers are small (i.e., less than 12) and percentages or rates are based on small numbers.

Please use caution when interpreting data on HIV diagnoses. HIV surveillance data on persons with diagnosed HIV may not be representative of all persons with HIV because not all persons with HIV have been (1) tested or (2) tested at a time when HIV could be detected and diagnosed. Also, some states offer anonymous HIV testing, and some persons complete self-testing at home or in a private location; the results of anonymous tests and of self-tests are not reported to the confidential, name-based HIV registries of state and local health departments [30, 31]. Therefore, reports of confidential test results may not represent all persons who tested positive for HIV. In addition, testing patterns are influenced by many factors, including the extent to which testing is routinely offered to specific groups and the availability of, and access to, medical care and testing services. The data presented in this report provide minimum counts of persons for whom HIV has been diagnosed and reported to the surveillance system. Although all jurisdictions use a uniform case report form, surveillance practices in data collection and updating of case records may differ among jurisdictions. More information on surveillance limitations can be found in the Technical Notes of the 2022 *HIV Surveillance Report* at <http://www.cdc.gov/hiv-data/nhss/hiv-diagnoses-deaths-prevalence.html>.

Please use caution when interpreting laboratory data for persons with diagnosed HIV. Laboratory data presented in this report are from 49 jurisdictions (48 states and the District of Columbia) that reported complete CD4 and viral load test results to CDC as of December 31, 2023. Data from these jurisdictions represent 97% of all persons aged ≥ 13 years living with diagnosed HIV at year-end 2022 in the United States.

Caution: Data for the year 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state/local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, readers should also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022. Deaths in 2020 and beyond should be interpreted with caution considering the impact of the COVID-19 pandemic. For additional information, see https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm. Death and prevalence data for the year 2022 are preliminary and based on death data received by CDC as of December 2023.

B. STAGES OF HIV INFECTION—CASE DEFINITIONS

Both the 2008 and 2014 HIV case definitions were used to classify HIV infection among persons aged ≥ 13 years and among children aged < 13 years [32, 33].

More information on case definitions can be found in the Technical Notes of the 2022 *HIV Surveillance Report* at <http://www.cdc.gov/hiv-data/nhss/hiv-diagnoses-deaths-prevalence.html>.

C. AREAS WITH COMPLETE LABORATORY REPORTING

As of December 31, 2023, 49 jurisdictions (48 states and the District of Columbia) had met the following criteria for the collection and reporting of CD4 and viral load test results:

- The jurisdiction's laws/regulations required the reporting of all levels of CD4 and viral load results to the state or local health department (Table 10).
- Laboratories that perform HIV-related testing for the jurisdiction had reported a minimum of 95% of HIV-related test results to the state or local health department.
- By December 31, 2023, the jurisdiction had reported (to CDC) at least 95% of all CD4 and viral load test results received from January 2021 through September 2023.

The 48 states are Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Data from these states and the District of Columbia were used to populate Tables 1a–e, 2a–e, 3a–e, and 4a–b. Data for Mississippi and West Virginia were included in analyses but should be interpreted with caution due to a lapse in laboratory reporting that occurred during the year 2022.

D. TABULATION AND PRESENTATION OF DATA

D1. Definitions and Data Specifications

D1.1 Stage of disease at time of HIV diagnosis

Data on persons with diagnosed HIV, stage 3 (AIDS), include persons whose stage of disease has ever been classified as stage 3 (AIDS). These data do not necessarily represent the current stage of disease.

The stages of HIV infection in the 2014 case definition are based on age-specific CD4 lymphocyte counts or percentages of total lymphocytes and are defined as follows:

- **HIV infection, stage 0:** Determined by a first confirmed positive HIV test result of any type within 6 months after a negative or indeterminate HIV test result (antibody, combination antigen/antibody, or nucleic acid), or by a sequence of laboratory tests that demonstrate the presence of HIV-specific viral markers (such as p24 antigen or nucleic acid) within 6 months before or after an antibody test that had a negative or indeterminate result. The stage 0 at HIV diagnosis classification remains stage 0 until 6 months after the first positive test result. The diagnosis of an AIDS-defining condition or a low CD4 test result within the first 6 months after stage 0 classification does not change the stage from stage 0 to stage 3. After 6 months, the stage may be classified as 1, 2, 3, or unknown based on a CD4 test result or the diagnosis of an opportunistic illness (OI).

- **HIV infection, stages 1, 2, and 3:** Documentation of an AIDS-defining OI (excluding stage 0 as described above) is stage 3. Otherwise, the stage is determined by the lowest CD4 lymphocyte test result:
 - Stage 1—CD4 lymphocyte count of ≥ 500 or a CD4 percentage of total lymphocytes of ≥ 26
 - Stage 2—CD4 lymphocyte count of 200–499 or a CD4 percentage of total lymphocytes of 14–25
 - Stage 3—CD4 lymphocyte count of < 200 or a CD4 percentage of total lymphocytes of < 14 or documentation of an AIDS-defining condition.
- **HIV infection, stage unknown:** No reported information on AIDS-defining OIs and no information available on CD4 lymphocyte count or percentage.

Because a complete assessment of stage of disease at time of HIV diagnosis relies on complete laboratory data (all CD4 values) so that earlier stages of disease (stage 0 or 1) can be assessed, stage of disease at time of diagnosis was calculated for the 49 jurisdictions that reported complete laboratory data (Tables 1a–e).

Information on stage 3 (AIDS) is available for all 50 states, the District of Columbia, and 6 U.S. territories and freely associated states, even when not all CD4 values are reportable; therefore, stage 3 (AIDS) at time of HIV diagnosis was calculated for persons in all areas (Tables 6a–d).

Stage of disease at time of diagnosis (i.e., HIV infection, stage 0, 1, 2, 3 [AIDS], or unknown; Tables 1a–e) and stage 3 (AIDS) at time of HIV diagnosis (Tables 6a–d) were determined by using the first CD4 test result or documentation of an AIDS-defining condition ≤ 3 months after the HIV diagnosis date during 2022, unless documentation indicated disease stage 0. If ≥ 2 events occurred during the same month and could thus qualify as “first,” the following conditions were applied:

- If an AIDS-defining condition was documented, the AIDS-defining condition was used; if a CD4 count or a CD4 percentage had been reported and an AIDS-defining condition was documented, the AIDS-defining condition was used.
- If an AIDS-defining condition was not documented, but a CD4 count and a CD4 percentage had been reported, the CD4 count was used.
- If an AIDS-defining condition was not documented, but > 1 CD4 count had been reported, the lowest CD4 count (indicative of the most severe disease state) was used.
- If an AIDS-defining condition was not documented and a CD4 count had not been reported, but a CD4 percentage had been reported, the CD4 percentage was used. If > 1 CD4 percentage was reported, the lowest CD4 percentage (indicative of the most severe disease state) was used.

For stage of disease at time of diagnosis, infections were classified as “stage unknown” if the month of HIV diagnosis was missing, or if, > 3 months after HIV diagnosis, neither a CD4 count nor a CD4 percentage had been determined and no AIDS-defining condition was documented.

D1.2 Linkage to, and receipt of, HIV medical care

The data on linkage to HIV medical care were based on persons with HIV diagnosed during 2022 and who resided in any of the 49 jurisdictions at the time of diagnosis (Tables 2a–e). Linkage to HIV medical care within 1 month of HIV diagnosis was measured by documentation of ≥ 1 CD4 (count or percentage) or viral load tests performed ≤ 1 month of HIV diagnosis, including tests performed on the same date as the date of diagnosis.

The data on receipt of HIV medical care were based on persons with HIV diagnosed by year-end 2021, who resided in any of the 49 jurisdictions as of their most recent known address, and who were alive at year-end 2022 (Tables 3a–e). Receipt of any HIV medical care was measured by documentation of ≥ 1 CD4 or viral load tests performed during 2022. Retention in care (receipt of continuous HIV medical care) was measured by documentation of ≥ 2 CD4 or viral load tests performed ≥ 3 months apart during 2022.

For analyses of linkage to, and retention in, care, the month and the year of the earliest HIV-positive test result reported to the surveillance system were used to determine the diagnosis date. Test results were excluded if the

month of the sample collection was missing. For linkage to care, data were excluded if the month of diagnosis was missing.

D1.3 Viral suppression

Viral suppression within 6 months of diagnosis was measured for persons with HIV diagnosed during 2022 and who resided in any of the 49 jurisdictions at the time of diagnosis (Tables 2a–e). Viral suppression was defined as a viral load result of <200 copies/mL at any viral load test within 6 months of an HIV diagnosis made during 2022.

Viral suppression was measured among persons with HIV diagnosed by year-end 2021, who resided in any of the 49 jurisdictions as of their most recent known address during 2022, and who were alive at year-end 2022 (Tables 4a/b). Viral suppression was defined as a viral load result of <200 copies/mL at the most recent viral load test. The cutoff value of <200 copies/mL was based on the following definition of virologic failure: viral load of ≥ 200 copies/mL. If multiple viral load tests were performed on the same day and could thus qualify as “most recent,” the viral load with VL results of <200 copies/ml was selected. If the numerical result was missing or the result was a logarithmic value, the interpretation of the result (e.g., below limit, ND [not detected]) was used to determine viral suppression. Virologic failure may indicate lack of adherence to antiretroviral therapy (ART).

D1.4 Death

Monitoring receipt of HIV medical care, retention in HIV medical care, viral suppression at most recent test, death (any cause), and survival of persons with diagnosed HIV is dependent upon complete death ascertainment conducted by HIV surveillance programs for reporting to CDC. Due to incomplete reporting of deaths for the year 2022, death data for Guam, Mississippi, South Carolina, U.S. Virgin Islands, and Utah should be interpreted with caution.

More information on deaths can be found in the Technical Notes of the *2022 HIV Surveillance Report* at <http://www.cdc.gov/hiv-data/nhss/hiv-diagnoses-deaths-prevalence.html>.

D1.5 Survival analyses

The Kaplan-Meier method was used to estimate the probability of survival (Tables 8a–f) for >3 years (36 months) for persons with diagnosed HIV and for persons whose stage of disease has ever been classified as stage 3 (AIDS). To allow ≥ 3 years from the time of HIV diagnosis to a death date on or before December 31, 2022, tables were limited to data on persons whose diagnosis or stage 3 (AIDS) classification was made during 2014–2019. The results of survival analyses for areas with <100 diagnoses per year (i.e., 600 during the 6-year period) were unstable and therefore are not presented in this report.

D1.6 Perinatally acquired HIV

Table 9a presents data for infants with HIV attributed to perinatal transmission and reported to NHSS through December 31, 2023. The data include all persons reported to NHSS with HIV attributed to perinatal exposure, regardless of place of birth. Table 9b presents a subset of data from Table 9a: the data include only the persons whose case record denoted the United States as place of birth or residence at birth. The data on persons with perinatally acquired HIV that are presented in Table 9b do not include persons who were born in a U.S. territory or freely associated state or a foreign country or whose residence at birth was unknown or missing from the case record.

D1.7 Measures of disparities

Disparity measures include absolute and relative measures. The literature recommends use of at least one absolute and one relative disparity measure to monitor the magnitude and direction of disparities [34, 35]. The absolute rate difference and the relative rate ratio disparity measures were chosen because they are used by federal

initiatives—Healthy People 2030, NHAS, and EHE—to measure progress in the social determinants of health (SDOH) and HIV-related indicators. This report uses the analytic approach used in Healthy People 2030 to assess the status of the overall outcomes relative to the proposed, national targets of 95% for linkage to HIV medical care and viral suppression [2].

We measured disparities for the 2 outcomes by selected characteristics (i.e., race/ethnicity, transmission category, and geographic area) and chose either the 95% outcome target or the group with the highest percentage for each outcome as our reference point to highlight opportunities for improvement. Disparities were measured for linkage to care and viral suppression by using the following measures:

- The absolute disparity measure is the absolute or maximal percentage difference that measures HIV-related disparities comparing the difference between the population groups with the highest and lowest percentage for that outcome to their respective targets (e.g., 95% for linkage to care and viral suppression; meeting the target equals 0) and to each other (e.g., between the population group with the highest and lowest percentage for that outcome).
- The relative disparity measures are the maximal percentage ratio and summary percentage ratio.
 - Maximal percentage ratio is the ratio between the groups with the highest and lowest percentage for an outcome to their respective targets (e.g., 95% for linkage to care and viral suppression; meeting the target equals 1) and to each other (e.g., between the population groups with the highest and lowest percentage for that outcome).
 - Summary percentage ratio is the ratio between the average of the percentages for all other groups [excluding the group with the highest percentage] and the group with the highest percentage for an outcome.
- Please note that comparisons made between only 2 groups are considered pairwise disparities.
- For NHSS, data from the “other” transmission category were excluded from disparity measure calculations.

D2. Rates

Rates per 100,000 population were calculated for (1) the numbers of HIV diagnoses, (2) the numbers of deaths of persons with diagnosed HIV, and (3) the numbers of persons living with diagnosed HIV. In the tables displaying data on perinatally acquired HIV (Tables 9a/b), rates were calculated per 100,000 live births [36].

More information on rates can be found in the Technical Notes of the 2022 *HIV Surveillance Report* at <http://www.cdc.gov/hiv-data/nhss/hiv-diagnoses-deaths-prevalence.html>.

D2.1 Rates of deaths (any cause)

In tables displaying data on deaths of persons with diagnosed HIV and deaths of persons with HIV ever classified as stage 3 (AIDS) (Tables 7a–f), rates were calculated in 3 ways:

- **Rates of deaths per 100,000 population:** Each rate was calculated by dividing the total number of deaths for the calendar year by the population for that calendar year and then multiplying the result by 100,000.
- **Rates of deaths per 1,000 persons living with diagnosed HIV or living with HIV disease ever classified as stage 3 (AIDS):** Rates were calculated by dividing the reported total number of deaths of persons with diagnosed HIV (or with HIV classified as stage 3 [AIDS]) during the calendar year by the sum of the number of persons living with an HIV diagnosis (or with HIV classified as stage 3 [AIDS]) at the end of the previous calendar year plus the number of HIV diagnoses (or stage 3 [AIDS] classifications) during the current calendar year; the result was then multiplied by 1,000.
- **Age-adjusted rates of deaths per 100,000 population and per 1,000 persons living with diagnosed HIV or living with HIV disease ever classified as stage 3 (AIDS):** Tables 7c and 7f include age-adjusted rates by area of residence in addition to crude rates. A standard population distribution was used to adjust death rates per 100,000 population and per 1,000 persons living with diagnosed HIV (or with HIV disease ever

classified as stage 3 [AIDS]). The age-adjusted rates are rates that would have existed if the age distribution of the designated population and the age distribution of the standard population were the same. The use of the U.S. 2000 standard population in calculating age-adjusted rates was based on recommendations by the National Center for Health Statistics [37, 38].

E. DEMOGRAPHIC INFORMATION

E1. Age

All tables in this report reflect data on persons aged 13 years and older, with the exception of Tables 9a/b (perinatally acquired HIV, birth years 2018–2022).

- Tables 3a–e and 4a/b (receipt of care and viral suppression): age was based on the person’s age at year-end 2021.
- Tables 7a–f (deaths): age was based on the person’s age at the time of death.
- All other tables: age was based on the person’s age at the time of HIV diagnosis.

E2. Sex and Gender

E2.1 Sex assigned at birth (SAAB)

Sex designations in this report are based on a person’s sex assigned at birth.

E2.2 Gender

Gender identity refers to a person’s internal understanding of their own gender, or gender with which a person identifies.

More information on gender can be found in the Technical Notes of the 2022 *HIV Surveillance Report* at <http://www.cdc.gov/hiv-data/nhss/hiv-diagnoses-deaths-prevalence.html>.

E3. Race and Ethnicity

In the *Federal Register* [39] for October 30, 1997, the Office of Management and Budget (OMB) announced the Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity.

Race and ethnicity are not risk factors but are instead markers for many underlying problems of greater relevance to health, including socioeconomic status and cultural behavior-characteristics, which are social and not biological [40, 41]. Racial and ethnic differences in health are more likely to reflect profound differences in people’s experiences based on the relatively advantaged or disadvantaged position in society into which they are born [41, 42]. SDOH factors, shaped by income, education, wealth, and socioeconomic conditions, vary systematically by race and ethnicity and are important in explaining differences in health outcomes [42].

Demographic information for the live birth registry is based on that of the birthing person [36]. Therefore, Tables 9a/b, which present estimated numbers and rates of perinatally acquired HIV, categorize race/ethnicity according to the birthing person’s race/ethnicity.

More information on race and ethnicity can be found in the Technical Notes of the 2022 *HIV Surveillance Report* at <http://www.cdc.gov/hiv-data/nhss/hiv-diagnoses-deaths-prevalence.html>.

E4. Transmission/Exposure Categories

E4.1 Transmission category

Transmission category is the term for the classification of cases that summarizes a person’s (aged ≥ 13 years) possible HIV risk factors; the summary classification results from selecting, from the presumed hierarchical order of probability, the 1 (single) risk factor most likely to have been responsible for transmission [43, 44]. Data have been statistically adjusted to account for missing transmission category. Because data have been

imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged.

More information on transmission categories can be found in the Technical Notes of the 2022 *HIV Surveillance Report* at <http://www.cdc.gov/hiv-data/nhss/hiv-diagnoses-deaths-prevalence.html>.

E4.2 Exposure category

Exposure category is the term for classifying patient history data (individual risk behaviors or events) by assigning individual risk behaviors or events into mutually exclusive categories. They are meant to convey all of the known ways a person could have been exposed to HIV. The exposure category classification was developed as an alternative to the hierarchical transmission category classification. For the presentation of data in this report, exposure category is used for the classification of transgender and AGI persons based on the risk factors that may have been responsible for HIV transmission; classification has no presumed hierarchical order of probability, except for rare circumstances where route of transmission has been confirmed through investigation. The categories are mutually exclusive. Data were not statistically adjusted to account for missing exposure category.

More information on exposure categories can be found in the Technical Notes of the 2022 *HIV Surveillance Report* at <http://www.cdc.gov/hiv-data/nhss/hiv-diagnoses-deaths-prevalence.html>.

F. GEOGRAPHIC DESIGNATION

F1. Area of Residence

Data by area of residence reflect the address at the time of stage 3 (AIDS) classification or at the time of HIV diagnosis for Tables 1b, 2b, 6c/d, 8c/f, and A1–A2. In Tables 3b, 4b, and A3–A4, area of residence is based on most recent known address as of December 31 of the specified year. For the death tables (7c/f), area of residence is based on residence at death. When information on residence at death is not available, the state where a person's death occurred is used.

F2. U.S. Census Regions

Data by region reflect the address at the time of HIV diagnosis for tables that present number of diagnoses (Tables 1b, 2b, 6a/b, 7a/b). In Tables 3b and 4b, region is based on most recent known address as of December 31 of the specified year. For the death tables (7a/b, 7d/e), region is based on residence at death.

The 4 regions used in this report are defined by the U.S. Census Bureau. Information on U.S. Census regions can be found at <https://www.census.gov/programs-surveys/economic-census/guidance-geographies/levels.html>.

F3. Population Area of Residence

Data by population area of residence reflect the address at the time of HIV diagnosis or stage 3 (AIDS) classification for Tables 1a/c, 2a/c, 6a, and 8a/d. For Tables 3a/c and 4a, population area of residence is based on the most recent known address as of December 31 of the specified year. For the death tables (7d), population area of residence is based on residence at death. The MSAs listed in these tables were defined according to OMB's last update (March 6, 2020) of statistical areas [45]. In 2022, U.S. Census Bureau county-level data transitioned from 8 counties to 9 planning regions in Connecticut [46]. While Census data was provided for Connecticut planning regions, these entities were not delineated to MSAs for the Vintage 2022 population estimates. Consequently, there were no available population estimates for MSAs that were defined by the OMB March 2020 Bulletin with respect to Connecticut planning regions.

References

1. The White House. National HIV/AIDS strategy for the United States 2022–2025. <https://www.hiv.gov/federal-response/national-hiv-aids-strategy/national-hiv-aids-strategy-2022-2025>. Published 2021. Accessed May 7, 2024.
2. Healthy People 2030. <https://health.gov/healthypeople/objectives-and-data/browse-objectives>. Updated January 15, 2021. Accessed May 7, 2024.
3. Fauci AS, Redfield RR, Sigounas G, Weahkee MD, Giroir BP. Ending the HIV Epidemic: a plan for the United States. *JAMA* 2019;321(9):844–845. doi:10.1001/jama.2019.1343
4. HHS. About Ending the HIV Epidemic in the U.S. <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>. Updated June 2, 2021. Accessed May 7, 2024.
5. CDC. *HIV Surveillance Report 2022*; vol. 35. <http://www.cdc.gov/hiv-data/nhss/hiv-diagnoses-deaths-prevalence.html>. Published May 2024. Accessed May 2024.
6. Cohen SM, Gray KM, Bañez Ocfemia MC, Satcher Johnson A, Hall HI. The status of the National HIV Surveillance System, United States, 2013. *Public Health Rep* 2014;129(4):335–341. doi:10.1177/003335491412900408
7. The White House. The U.S. Playbook to Address Social Determinants of Health. <https://www.whitehouse.gov/wp-content/uploads/2023/11/SDOH-Playbook-3.pdf>. Published November 2023. Accessed May 7, 2024.
8. Collins J, Niakan K, Schweitzer K, Silseth S. Study of the impact of COVID-19 on HIV testing, diagnosis, and treatment in the United States. Milliman White Paper available at <https://www.milliman.com/en/insight/impact-of-covid-19-on-hiv>. Published October 2022. Accessed May 7, 2024.
9. CDC [Schuchat A, CDC COVID-19 Response Team]. Public health response to the initiation and spread of pandemic COVID-19 in the United States, February 24–April 21, 2020. *MMWR* 2020;69(18):551–556. doi:10.15585/mmwr.mm6918e2
10. Delaney KP, Jayanthi P, Emerson B, et al. Impact of COVID-19 on commercial laboratory testing for HIV in the United States. 2021 CROI, March 6–10, 2021. Abstract 739. https://natap.org/2021/CROI/croi_163.htm
11. Moitra E, Tao J, Olsen J, et al. Impact of the COVID-19 pandemic on HIV testing rates across four geographically diverse urban centres in the United States: an observational study. *Lancet Reg Health Am* 2022;7:100159. doi:10.1016/j.lana.2021.100159
12. Chang JJ, Chen Q, Hechter RC, Dionne-Odom J, Bruxvoort K. Changes in HIV and STI testing and diagnoses during the COVID-19 pandemic. *Sex Transm Dis* 2022;48(12):851–854. doi:10.1097/OLQ.0000000000001639
13. Sullivan PS, Satcher Johnson A, Pembleton ES, et al. Epidemiology of HIV in the USA: Epidemic burden, inequities, contexts, and responses. *Lancet* 2021;397(10279):1095–1106. doi:10.1016/S0140-6736(21)00395-0
14. Barr D. *Health Disparities in the United States: Social Class, Race, Ethnicity, and the Social Determinants of Health*. 3rd ed. Johns Hopkins University Press; 2019.
15. An Q, Prejean J, McDavid Harrison K, Fang X. Association between community socioeconomic position and HIV diagnosis rate among adults and adolescents in the United States, 2005 to 2009. *Am J Public Health* 2013;103(1):120–126. doi:10.2105/AJPH.2012.300853
16. Buot M-LG, Docena JP, Ratemo BK, et al. Beyond race and place: Distal sociological determinants of HIV disparities. *PLoS One* 2014;9(4):e91711. doi:10.1371/journal.pone.0091711
17. Chapman Lambert C, Tarver WL, Musoke PL, et al. Complexities of HIV disclosure in patients newly entering HIV care: a qualitative analysis. *J Assoc Nurses AIDS Care* 2020;31(2):208–218. doi:10.1097/JNC.000000000000127
18. Sanchez TH, Kelley CF, Rosenberg E, et al. Lack of awareness of human immunodeficiency virus (HIV) infection: Problems and solutions with self-reported HIV serostatus of men who have sex with men. *Open Forum Infect Dis* 2014;1(2):ofu084. doi:10.1093/ofid/ofu084

19. Kellerman SE, Lehman SJ, Lansky A, et al. HIV testing within at-risk populations in the United States and the reasons for seeking or avoiding HIV testing. *JAIDS* 2002;31(2):202–210. doi:10.1097/00126334-200210010-00011
20. Babiker AG, Lundgren J, Sharma S, et al. LB2305. Long term benefits from early antiretroviral therapy initiation in HIV infection: Findings from the extended follow-up of the START trial. *Open Forum Infect Dis* 2022;9(Suppl 2):S933–S934. doi:10.1093/ofid/ofac492.1895
21. CDC. HIV and all gay and bisexual men. <https://www.cdc.gov/hiv/group/msm/index.html>. Updated February 16, 2023. Accessed May 7, 2024.
22. CDC. HIV and people who inject drugs. <https://www.cdc.gov/hiv/group/hiv-idu.html>. Updated June 28, 2022. Accessed May 7, 2024.
23. CDC. *HIV Surveillance Report*, 2021; vol. 34. <https://stacks.cdc.gov/view/cdc/149071>. Published May 2023. Accessed May 16, 2024.
24. CDC. HIV and transgender people: Terminology. <https://www.cdc.gov/hiv/group/gender/transgender/terminology.html>. Updated March 23, 2023. Accessed May 7, 2024.
25. CDC. HIV and transgender people: Prevention challenges. <https://www.cdc.gov/hiv/group/gender/transgender/prevention-challenges.html>. Updated April 13, 2022. Accessed May 7, 2024.
26. CDC. HIV and women: Prevention challenges. <https://www.cdc.gov/hiv/group/gender/women/prevention-challenges.html>. Updated August 18, 2022. Accessed May 7, 2024.
27. CDC. HIV in the United States by age: Behaviors associated with HIV transmission. <https://www.cdc.gov/hiv/group/age/risk-behaviors.html>. Updated October 2, 2023. Accessed May 7, 2024.
28. CDC. U.S. Public Health Service recommendations for Human Immunodeficiency Virus counseling and voluntary testing for pregnant women. *MMWR* 1995;44(RR-7):1–15. <https://www.cdc.gov/mmwr/preview/mmwrhtml/00038277.htm>. Accessed May 7, 2024.
29. CDC [Branson BM, Handsfield HH, Lampe MA, et al]. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. *MMWR* 2006;55(RR-14):1–17. <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>. Accessed May 7, 2024.
30. CDC. Sharing your test result. <https://www.cdc.gov/hiv/basics/hiv-testing/sharing-test-results.html>. Updated May 2021. Accessed May 7, 2024.
31. CDC. Self-Testing. <https://www.cdc.gov/hiv/testing/self-testing.html>. Updated July 2021. Accessed May 7, 2024.
32. CDC [Selik RM, Mokotoff ED, Branson B, Owen SM, Whitmore S, Hall HI]. Revised surveillance case definition for HIV infection—United States, 2014. *MMWR* 2014;63(RR-03):1–10. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6303a1.htm>. Accessed May 7, 2024.
33. CDC [Schneider E, Whitmore S, Glynn MK, Dominguez K, Mitsch A, McKenna MT]. Revised surveillance case definitions for HIV infection among adults, adolescents, and children aged <18 months and for HIV infection and AIDS among children aged 18 months to <13 years—United States, 2008. *MMWR* 2008;57(RR-10):1–12. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5710a1.htm>. Accessed May 7, 2024.
34. Keppel K, Pamuk E, Lynch J, et al. Methodological issues in measuring health disparities. *Vital Health Stat* 2005;141:1–16.
35. Penman-Aguilar A, Talih M, Huang D, Moonesinghe R, Bouye K, Beckles G. Measurement of health disparities, health inequities, and social determinants of health to support the advancement of health equity. *J Public Health Manag Pract* 2016;22(Suppl 1):S33–S42. doi:10.1097/PHH.0000000000000373
36. Martin JA, Hamilton BE, Osterman MJK, Driscoll AK. Births: final data for 2018. *Natl Vital Stat Rep* 2019;68(13):1–47.
37. Anderson RN, Rosenberg HM. Age standardization of death rates: implementation of the year 2000 standard. *Natl Vital Stat Rep* 1998;47(3):1–16, 20.
38. Klein RJ, Schoenborn CA. Age adjustment using the 2000 projected U.S. population. *Healthy People 2010 Stat Notes* 2001;(20):1–9. <http://www.cdc.gov/nchs/data/statnt/statnt20.pdf>. Accessed May 7, 2024.
39. Office of Management and Budget. Revisions to the standards for the classification of federal data on race and ethnicity. *Federal Register* 1997;62(210):58782–58790. <https://www.federalregister.gov/documents/1997/10/30/97-28653/revisions-to-the-standards-for-the-classification-of-federal-data-on-race-and-ethnicity>. Accessed May 7, 2024.

40. CDC. Use of race and ethnicity in public health surveillance summary of the CDC/ATSDR workshop. *MMWR* 1993;42(RR-10):1–28.
41. Doubeni CA, Simon M, Krist AH. Addressing systemic racism through clinical preventive service recommendations from the US Preventive Services Task Force. *JAMA* 2021;325(7):627–628. doi:10.1001/jama.2020.26188
42. Braveman PA, Egerter SA, Mockenhaupt RE. Broadening the focus: The need to address the social determinants of health. *Am J Prev Med* 2011;40(1):S4–S18. doi.org/10.1016/j.amepre.2010.10.002
43. Harrison KM, Kajese T, Hall HI, Song R. Risk factor redistribution of the national HIV/AIDS surveillance data: an alternative approach. *Public Health Rep* 2008;123(5):618–627. doi:10.1177/003335490812300512
44. Rubin, DB. *Multiple Imputation for Nonresponse in Surveys*. New York: John Wiley & Sons Inc; 1987.
45. Office of Management and Budget. Revised delineations of metropolitan statistical areas, micropolitan statistical areas, and combined statistical areas, and guidance on uses of the delineations of these areas. OMB Bulletin 20-01. <https://www.whitehouse.gov/wp-content/uploads/2020/03/Bulletin-20-01.pdf>. Published March 6, 2020. Accessed May 7, 2024.
46. Census Bureau. Change to county-equivalents in the State of Connecticut. *Federal Register* 2022;87:34235-34240. <https://www.federalregister.gov/documents/2022/06/06/2022-12063/change-to-county-equivalents-in-the-state-of-connecticut>. Published June 6, 2022. Accessed May 7, 2024.

SUGGESTED READINGS

- CDC. Establishing a holistic framework to reduce inequities in HIV, viral hepatitis, STDs, and tuberculosis in the United States: an NCHHSTP white paper on social determinants of health, 2010. <https://www.cdc.gov/socialdeterminants/docs/sdh-white-paper-2010.pdf>. Accessed May 7, 2024.
- CDC [Bosh KA, Satcher Johnson A, Hernandez AL, et al]. Vital Signs: Deaths among persons with diagnosed HIV infection, United States, 2010–2018. *MMWR* 2020;69(46):1717–1724. doi:10.15585/mmwr.mm6946a1
- CDC [Branson BM, Handsfield HH, Lampe MA, et al]. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. *MMWR* 2006;55(RR-14):1–17. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>. Accessed May 7, 2024.
- CDC [Crepaz N, Dong X, Wang X, Hernandez AL, Hall HI]. Racial and ethnic disparities in sustained viral suppression and transmission risk potential among persons receiving HIV care—United States, 2014. *MMWR* 2018;67(04):113–118. <http://www.cdc.gov/mmwr/volumes/67/wr/mm6704a2.htm>. Accessed May 7, 2024.
- CDC [Gant Z, Dailey A, Hu X, Satcher Johnson A]. HIV care outcomes among Hispanics or Latinos with diagnosed HIV infection—United States, 2015. *MMWR* 2017;66(40):1065–1072. <http://www.cdc.gov/mmwr/volumes/66/wr/mm6640a2.htm>. Accessed May 7, 2024.
- CDC [Gant Z, Dailey A, Wang S, et al]. Trends in HIV care outcomes among adults and adolescents in the U.S. South, 2015–2019. *Ann Epidemiol* 2022;71:15–22. doi:10.1016/j.annepidem.2022.04.011
- CDC [Johnson Lyons S, Dailey AF, Yu C, Satcher Johnson A]. Care outcomes among Black or African American persons with diagnosed HIV in rural, urban, and metropolitan statistical areas—42 U.S. jurisdictions, 2018. *MMWR* 2021;70(7):97–103. <https://www.cdc.gov/mmwr/volumes/70/wr/mm7007a1.htm>. Accessed May 7, 2024.
- CDC [Schneider E, Whitmore S, Glynn MK, Dominguez K, Mitsch A, McKenna MT]. Revised surveillance case definitions for HIV infection among adults, adolescents, and children aged <18 months and for HIV infection and AIDS among children aged 18 months to <13 years—United States, 2008. *MMWR* 2008;57(RR-10):1–12. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5710a1.htm>. Accessed May 7, 2024.
- CDC [Selik RM, Mokotoff ED, Branson B, Owen SM, Whitmore S, Hall HI]. Revised surveillance case definition for HIV infection—United States, 2014. *MMWR* 2014;63(RR-03):1–10. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6303a1.htm>. Accessed May 7, 2024.

- CDC [Siddiqi A, Hu X, Hall HI]. Mortality among blacks or African Americans with HIV infection—United States, 2008–2012. *MMWR* 2015;64(04):81–86. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6404a2.htm>. Accessed May 7, 2024.
- CDC [Singh S, Mitsch A, Wu B]. HIV care outcomes among men who have sex with men with diagnosed HIV infection—United States, 2015. *MMWR* 2017;66(37):969–974. <http://www.cdc.gov/mmwr/volumes/66/wr/mm6637a2.htm>. Accessed May 7, 2024.
- Chapman Lambert C, Tarver WL, Musoke PL, et al. Complexities of HIV disclosure in patients newly entering HIV care: a qualitative analysis. *J Assoc Nurses AIDS Care* 2020;31(2):208–218. doi:10.1097/JNC.000000000000127
- Fauci AS, Redfield RR, Sigounas G, Weahkee MD, Giroir BP. Ending the HIV Epidemic: a plan for the United States. *JAMA* 2019;321(9):844–845. doi:10.1001/jama.2019.1343
- Greenberg AE, Purcell DW, Gordon CM, Barasky RJ, del Rio C. Addressing the challenges of the HIV continuum of care in high-prevalence cities in the United States. *J Acquir Immune Defic Syndr* 2015;69(suppl 1):S1–S7. doi:10.1097/QAI.0000000000000569
- Hess KL, Hall HI. HIV viral suppression, 37 states and the District of Columbia, 2014. *J Community Health* 2018;43(2):338–347. doi:10.1007/s10900-017-0427-3
- U.S. Department of Health and Human Services. About Ending the HIV Epidemic in the U.S. <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>. Updated December 4, 2023. Accessed May 7, 2024.
- Institute of Medicine. Monitoring HIV care in the United States: indicators and data systems [consensus report]. <http://www.nap.edu/read/13225/chapter/1>. Published March 15, 2012. Accessed May 7, 2024.
- Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in adults and adolescents living with HIV. <https://clinicalinfo.hiv.gov/en/guidelines/adult-and-adolescent-arv/whats-new-guidelines>. Updated February 27, 2024. Accessed May 7, 2024.

COVID-19 SUGGESTED READINGS

- CDC [Schuchat A, CDC COVID-19 Response Team]. Public health response to the initiation and spread of pandemic COVID-19 in the United States, February 24–April 21, 2020. *MMWR* 2020;69(18):551–556. doi:10.15585/mmwr.mm6918e2
- Guidelines Working Groups of the NIH Office of AIDS Research Advisory Council. Guidance for COVID-19 and people with HIV. <https://clinicalinfo.hiv.gov/en/guidelines/guidance-covid-19-and-people-hiv/guidance-covid-19-and-people-hiv>. Updated February 22, 2022. Accessed May 7, 2024.
- Hershow RB, Wilson S, Bonacci RA, et al. Notes from the Field: HIV outbreak during the COVID-19 pandemic among persons who inject drugs—Kanawha County, West Virginia, 2019–2021. *MMWR* 2022;71(2):66–68. doi:10.15585/mmwr.mm7102a4
- CDC. HIV and COVID-19 basics. <https://www.cdc.gov/hiv/basics/covid-19.html>. Updated July 2022. Accessed May 7, 2024.
- Tesoriero JM, Swain CE, Pierce JL, et al. COVID-19 outcomes among persons living with or without diagnosed HIV infection in New York State. *JAMA Netw Open* 2021;4(2):e2037069. doi:10.1001/jamanetworkopen.2020.37069
- Weiser JK, Tie Y, Beer L, Neblett Fanfair R, Shouse RL. Racial/Ethnic and income disparities in the prevalence of comorbidities that are associated with risk for severe COVID-19 among adults receiving HIV care, United States, 2014–2019; *J Acquir Immune Defic Syndr* 2020;86(3):297–304. doi:10.1097/QAI.0000000000002592
- Yang X, Sun J, Patel RC, et al. Associations between HIV infection and clinical spectrum of COVID-19: a population level analysis based on US National COVID Cohort Collaborative (N3C) data. *Lancet HIV* 2021;8(11):e690–700. doi:10.1016/S2352-3018(21)00239-3

Table 1a. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by selected characteristics—48 states and the District of Columbia

	Total No.	Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)				Stage 2 (CD4=200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		Stage 0 ^a	No.	%	No.	%	No.	%	No.	%	
Gender											
Man	28,785	2,264	7.9	7,132	24.8	9,122	31.7	6,063	21.1	4,204	14.6
Woman	6,710	396	5.9	1,915	28.5	1,852	27.6	1,422	21.2	1,125	16.8
Transgender woman ^c	851	88	10.3	256	30.1	297	34.9	102	12.0	108	12.7
Transgender man ^c	59	6	10.2	23	39.0	21	35.6	4	6.8	5	8.5
Additional gender identity ^d	65	11	16.9	16	24.6	22	33.8	13	20.0	3	4.6
Age at diagnosis (yr)											
13–24	6,884	725	10.5	1,920	27.9	2,513	36.5	712	10.3	1,014	14.7
25–34	13,572	1,090	8.0	3,683	27.1	4,412	32.5	2,330	17.2	2,057	15.2
35–44	8,017	521	6.5	2,047	25.5	2,302	28.7	1,966	24.5	1,181	14.7
45–54	4,400	240	5.5	957	21.8	1,157	26.3	1,412	32.1	634	14.4
55–64	2,753	136	4.9	574	20.8	726	26.4	901	32.7	416	15.1
≥65	844	53	6.3	161	19.1	204	24.2	283	33.5	143	16.9
Race/ethnicity											
American Indian/Alaska Native	213	19	8.9	57	26.8	65	30.5	43	20.2	29	13.6
Asian	773	49	6.3	167	21.6	264	34.2	217	28.1	76	9.8
Black/African American	14,198	996	7.0	3,408	24.0	4,463	31.4	2,819	19.9	2,512	17.7
Hispanic/Latino ^e	11,270	898	8.0	2,958	26.2	3,738	33.2	2,396	21.3	1,280	11.4
Native Hawaiian/ other Pacific Islander	83	5	6.0	20	24.1	17	20.5	20	24.1	21	25.3
White	8,924	728	8.2	2,409	27.0	2,476	27.7	1,900	21.3	1,411	15.8
Multiracial	1,009	70	6.9	323	32.0	291	28.8	209	20.7	116	11.5
Transmission category^f											
Male-to-male sexual contact ^g	24,490	2,051	8.4	6,258	25.6	7,990	32.6	4,778	19.5	3,413	13.9
Injection drug use ^h	2,532	167	6.6	620	24.5	660	26.1	567	22.4	518	20.5
Male	1,408	80	5.7	299	21.3	381	27.1	345	24.5	302	21.4
Female	1,124	87	7.7	321	28.6	278	24.8	222	19.7	216	19.2
Male-to-male sexual contact ^g and injection drug use ^h	1,298	117	9.0	367	28.3	371	28.6	240	18.5	203	15.6
Heterosexual contact ⁱ	8,073	427	5.3	2,075	25.7	2,272	28.2	2,000	24.8	1,298	16.1
Male	2,468	113	4.6	470	19.1	690	28.0	805	32.6	389	15.8
Female	5,605	314	5.6	1,604	28.6	1,582	28.2	1,195	21.3	909	16.2
Other ^j	78	3	3.9	22	28.0	20	26.2	19	24.9	13	17.0
Male	31	2	4.8	8	26.5	5	16.0	9	30.0	7	22.7
Female	47	2	3.2	13	29.0	15	33.1	10	21.5	6	13.1
Population area of residence^k											
Metropolitan statistical areas (pop. ≥500,000)	28,912	2,242	7.8	7,462	25.8	9,163	31.7	5,930	20.5	4,115	14.2
Metropolitan areas (pop. 50,000–499,999)	4,687	325	6.9	1,187	25.3	1,406	30.0	1,000	21.3	769	16.4
Nonmetropolitan areas (pop. <50,000)	2,517	156	6.2	593	23.6	651	25.9	621	24.7	496	19.7
Total	36,470	2,765	7.6	9,342	25.6	11,314	31.0	7,604	20.9	5,445	14.9

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); pop., population; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after HIV diagnosis. Data are based on residence at HIV diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Determined by a first confirmed positive HIV test result of any type within 6 months after a negative or indeterminate HIV test result, or by a sequence of laboratory tests that demonstrate the presence of HIV-specific viral markers within 6 months before or after a negative or indeterminate antibody test result. The diagnosis of an AIDS-defining condition or a low CD4 test result within the first 6 months after the stage 0 at HIV diagnosis classification does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

^c “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^d Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^e Hispanic/Latino persons can be of any race.

^f Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^g Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^h Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

ⁱ Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^j Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^k Population area of residence defined by the U.S. Office of Management and Budget.

Table 1b. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by area of residence—48 states and the District of Columbia

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4=200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
		Alabama	701	23	3.3	198	28.2	207	29.5	142	20.3
Alaska	38	4	10.5	14	36.8	8	21.1	8	21.1	4	10.5
Arizona	860	77	9.0	200	23.3	272	31.6	186	21.6	125	14.5
Arkansas	305	3	1.0	58	19.0	48	15.7	48	15.7	148	48.5
California	4,856	411	8.5	1,262	26.0	1,572	32.4	946	19.5	665	13.7
Colorado	433	91	21.0	98	22.6	108	24.9	94	21.7	42	9.7
Connecticut	220	26	11.8	71	32.3	64	29.1	37	16.8	22	10.0
Delaware	128	10	7.8	21	16.4	38	29.7	39	30.5	20	15.6
District of Columbia	211	9	4.3	66	31.3	76	36.0	35	16.6	25	11.8
Florida	4,290	239	5.6	1,230	28.7	1,331	31.0	938	21.9	552	12.9
Georgia	2,511	116	4.6	617	24.6	834	33.2	551	21.9	393	15.7
Hawaii	78	2	2.6	33	42.3	17	21.8	17	21.8	9	11.5
Illinois	1,306	89	6.8	326	25.0	378	28.9	261	20.0	252	19.3
Indiana	612	13	2.1	162	26.5	178	29.1	141	23.0	118	19.3
Iowa	123	11	8.9	44	35.8	33	26.8	29	23.6	6	4.9
Kansas	133	8	6.0	38	28.6	45	33.8	37	27.8	5	3.8
Kentucky	405	36	8.9	95	23.5	110	27.2	101	24.9	63	15.6
Louisiana	856	113	13.2	180	21.0	284	33.2	161	18.8	118	13.8
Maine	41	1	2.4	9	22.0	14	34.1	11	26.8	6	14.6
Maryland	748	46	6.1	208	27.8	249	33.3	183	24.5	62	8.3
Massachusetts	438	22	5.0	131	29.9	140	32.0	93	21.2	52	11.9
Michigan	629	63	10.0	170	27.0	175	27.8	128	20.3	93	14.8
Minnesota	261	17	6.5	59	22.6	106	40.6	45	17.2	34	13.0
Mississippi ^c	448	9	2.0	63	14.1	94	21.0	77	17.2	205	45.8
Missouri	512	24	4.7	139	27.1	148	28.9	78	15.2	123	24.0
Montana	11	0	0.0	5	45.5	1	9.1	3	27.3	2	18.2
Nebraska	91	5	5.5	24	26.4	25	27.5	19	20.9	18	19.8
Nevada	528	20	3.8	147	27.8	197	37.3	110	20.8	54	10.2
New Hampshire	28	3	10.7	8	28.6	9	32.1	4	14.3	4	14.3
New Mexico	94	5	5.3	25	26.6	26	27.7	22	23.4	16	17.0
New York	2,226	221	9.9	606	27.2	717	32.2	462	20.8	220	9.9
North Carolina	1,353	142	10.5	304	22.5	414	30.6	259	19.1	234	17.3
North Dakota	38	1	2.6	13	34.2	14	36.8	8	21.1	2	5.3
Ohio	855	80	9.4	224	26.2	241	28.2	191	22.3	119	13.9
Oklahoma	394	18	4.6	89	22.6	132	33.5	80	20.3	75	19.0
Oregon	250	43	17.2	51	20.4	79	31.6	54	21.6	23	9.2
Pennsylvania	954	74	7.8	251	26.3	270	28.3	203	21.3	156	16.4
Rhode Island	68	2	2.9	17	25.0	28	41.2	12	17.6	9	13.2
South Carolina	717	30	4.2	174	24.3	204	28.5	193	26.9	116	16.2
South Dakota	40	3	7.5	10	25.0	17	42.5	6	15.0	4	10.0
Tennessee	860	34	4.0	202	23.5	260	30.2	163	19.0	201	23.4
Texas	4,896	458	9.4	1,191	24.3	1,577	32.2	998	20.4	672	13.7
Utah	155	17	11.0	40	25.8	47	30.3	32	20.6	19	12.3
Vermont	4	2	50.0	1	25.0	0	0.0	1	25.0	0	0.0
Virginia	834	73	8.8	201	24.1	264	31.7	193	23.1	103	12.4
Washington	491	36	7.3	144	29.3	142	28.9	119	24.2	50	10.2
West Virginia ^c	136	11	8.1	28	20.6	25	18.4	23	16.9	49	36.0
Wisconsin	291	23	7.9	89	30.6	93	32.0	61	21.0	25	8.6
Wyoming	13	1	7.7	6	46.2	3	23.1	2	15.4	1	7.7
Region of residence^d											
Northeast (excluding NJ)	3,979	351	8.8	1,094	27.5	1,242	31.2	823	20.7	469	11.8
Midwest	4,891	337	6.9	1,298	26.5	1,453	29.7	1,004	20.5	799	16.3
Southeast	19,793	1,370	6.9	4,925	24.9	6,147	31.1	4,184	21.1	3,167	16.0
West (excluding ID)	7,807	707	9.1	2,025	25.9	2,472	31.7	1,593	20.4	1,010	12.9

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after HIV diagnosis. Data are based on residence at HIV diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Determined by a first confirmed positive HIV test result of any type within 6 months after a negative or indeterminate HIV test result, or by a sequence of laboratory tests that demonstrate the presence of HIV-specific viral markers within 6 months before or after a negative or indeterminate antibody test result. The diagnosis of an AIDS-defining condition or a low CD4 test result within the first 6 months after the stage 0 at HIV diagnosis classification does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

^c Data should be interpreted with caution due to lapse in laboratory data completeness that occurred during the year 2022.

^d Region of residence defined by the U.S. Census Bureau. Data should be interpreted with caution as areas with incomplete reporting to CDC are not included.

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
American Indian/Alaska Native											
Gender											
Man	149	9	6.0	40	26.8	44	29.5	39	26.2	17	11.4
Woman	57	10	17.5	15	26.3	18	31.6	2	3.5	12	21.1
Transgender woman ^c	6	0	0.0	2	33.3	3	50.0	1	16.7	0	0.0
Transgender man ^c	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Additional gender identity ^d	1	0	0.0	0	0.0	0	0.0	1	100	0	0.0
Male sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	27	3	11.1	7	25.9	11	40.7	4	14.8	2	7.4
25–34	63	3	4.8	18	28.6	20	31.7	14	22.2	8	12.7
35–44	44	3	6.8	11	25.0	12	27.3	14	31.8	4	9.1
45–54	9	0	0.0	2	22.2	1	11.1	5	55.6	1	11.1
55–64	11	0	0.0	3	27.3	3	27.3	4	36.4	1	9.1
≥65	2	0	0.0	1	50.0	0	0.0	0	0.0	1	50.0
Transmission category^e											
Male-to-male sexual contact ^f	112	8	7.1	31	27.1	35	31.0	29	25.6	10	9.1
Injection drug use ^g	15	0	0.0	2	15.0	3	17.0	8	51.0	3	17.0
Male-to-male sexual contact ^f and injection drug use ^g	18	1	5.7	5	26.3	6	34.9	4	22.3	2	10.9
Heterosexual contact ^h	11	0	0.0	5	42.5	3	31.1	1	4.7	2	21.7
Other ⁱ	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	70	2	2.9	15	21.4	29	41.4	18	25.7	6	8.6
Metropolitan areas (pop. 50,000–499,999)	37	1	2.7	14	37.8	11	29.7	8	21.6	3	8.1
Nonmetropolitan areas (pop. < 50,000)	47	5	10.6	12	25.5	7	14.9	15	31.9	8	17.0
Subtotal	156	9	5.8	42	26.9	47	30.1	41	26.3	17	10.9

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
American Indian/Alaska Native (cont)											
Female sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	7	0	0.0	2	28.6	2	28.6	0	0.0	3	42.9
25–34	21	5	23.8	7	33.3	7	33.3	0	0.0	2	9.5
35–44	13	2	15.4	3	23.1	6	46.2	0	0.0	2	15.4
45–54	14	2	14.3	3	21.4	2	14.3	2	14.3	5	35.7
55–64	2	1	50.0	0	0.0	1	50.0	0	0.0	0	0.0
≥65	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Transmission category^e											
Injection drug use ^g	26	3	11.2	9	35.7	8	31.4	1	1.9	5	19.8
Heterosexual contact ^h	31	7	22.8	6	18.6	10	31.5	2	4.8	7	22.2
Other ⁱ	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	31	6	19.4	9	29.0	8	25.8	1	3.2	7	22.6
Metropolitan areas (pop. 50,000–499,999)	8	1	12.5	3	37.5	3	37.5	0	0.0	1	12.5
Nonmetropolitan areas (pop. < 50,000)	18	3	16.7	3	16.7	7	38.9	1	5.6	4	22.2
Subtotal	57	10	17.5	15	26.3	18	31.6	2	3.5	12	21.1
Total	213	19	8.9	57	26.8	65	30.5	43	20.2	29	13.6

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Asian											
Gender											
Man	653	44	6.7	137	21.0	219	33.5	192	29.4	61	9.3
Woman	100	3	3.0	27	27.0	35	35.0	21	21.0	14	14.0
Transgender woman ^c	14	1	7.1	3	21.4	6	42.9	3	21.4	1	7.1
Transgender man ^c	1	0	0.0	0	0.0	1	100	0	0.0	0	0.0
Additional gender identity ^d	5	1	20.0	0	0.0	3	60.0	1	20.0	0	0.0
Male sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	106	11	10.4	23	21.7	50	47.2	12	11.3	10	9.4
25–34	257	20	7.8	57	22.2	98	38.1	61	23.7	21	8.2
35–44	173	10	5.8	41	23.7	47	27.2	58	33.5	17	9.8
45–54	89	5	5.6	13	14.6	21	23.6	44	49.4	6	6.7
55–64	40	0	0.0	6	15.0	11	27.5	18	45.0	5	12.5
≥65	7	0	0.0	0	0.0	1	14.3	3	42.9	3	42.9
Transmission category^e											
Male-to-male sexual contact ^f	608	45	7.3	128	21.1	214	35.1	164	27.0	58	9.5
Injection drug use ^g	15	0	0.0	1	4.6	2	15.2	9	62.9	2	15.9
Male-to-male sexual contact ^f and injection drug use ^g	13	1	8.7	1	4.8	5	39.7	5	42.9	1	4.0
Heterosexual contact ^h	35	0	0.0	10	29.7	7	19.7	16	46.9	1	3.7
Other ⁱ	1	0	0.0	0	0.0	0	0.0	1	66.7	0	0.0
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	596	42	7.0	128	21.5	204	34.2	169	28.4	53	8.9
Metropolitan areas (pop. 50,000–499,999)	64	4	6.3	11	17.2	21	32.8	21	32.8	7	10.9
Nonmetropolitan areas (pop. < 50,000)	9	0	0.0	0	0.0	3	33.3	5	55.6	1	11.1
Subtotal	672	46	6.8	140	20.8	228	33.9	196	29.2	62	9.2

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Asian (cont)											
Female sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	8	0	0.0	2	25.0	2	25.0	1	12.5	3	37.5
25–34	32	1	3.1	8	25.0	12	37.5	8	25.0	3	9.4
35–44	29	2	6.9	8	27.6	10	34.5	5	17.2	4	13.8
45–54	18	0	0.0	7	38.9	6	33.3	3	16.7	2	11.1
55–64	8	0	0.0	1	12.5	5	62.5	2	25.0	0	0.0
≥65	6	0	0.0	1	16.7	1	16.7	2	33.3	2	33.3
Transmission category^e											
Injection drug use ^g	7	0	0.0	1	17.9	3	47.8	2	22.4	1	11.9
Heterosexual contact ^h	92	3	3.3	26	27.7	32	35.2	19	20.7	12	13.2
Other ⁱ	2	0	0.0	0	0.0	0	0.0	1	21.7	1	47.8
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	87	3	3.4	25	28.7	29	33.3	18	20.7	12	13.8
Metropolitan areas (pop. 50,000–499,999)	10	0	0.0	1	10.0	6	60.0	2	20.0	1	10.0
Nonmetropolitan areas (pop. < 50,000)	3	0	0.0	1	33.3	0	0.0	1	33.3	1	33.3
Subtotal	101	3	3.0	27	26.7	36	35.6	21	20.8	14	13.9
Total	773	49	6.3	167	21.6	264	34.2	217	28.1	76	9.8

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Black/African American											
Gender											
Man	10,396	774	7.4	2,346	22.6	3,345	32.2	2,045	19.7	1,886	18.1
Woman	3,409	185	5.4	935	27.4	990	29.0	727	21.3	572	16.8
Transgender woman ^c	351	34	9.7	110	31.3	115	32.8	42	12.0	50	14.2
Transgender man ^c	23	2	8.7	11	47.8	8	34.8	0	0.0	2	8.7
Additional gender identity ^d	19	1	5.3	6	31.6	5	26.3	5	26.3	2	10.5
Male sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	2,999	313	10.4	732	24.4	1,115	37.2	306	10.2	533	17.8
25–34	4,257	336	7.9	1,003	23.6	1,365	32.1	778	18.3	775	18.2
35–44	1,839	95	5.2	399	21.7	569	30.9	466	25.3	310	16.9
45–54	878	36	4.1	166	18.9	197	22.4	311	35.4	168	19.1
55–64	591	20	3.4	121	20.5	170	28.8	165	27.9	115	19.5
≥65	198	9	4.5	40	20.2	47	23.7	65	32.8	37	18.7
Transmission category^e											
Male-to-male sexual contact ^f	8,638	703	8.1	2,015	23.3	2,896	33.5	1,496	17.3	1,529	17.7
Injection drug use ^g	379	21	5.5	82	21.8	93	24.6	90	23.7	93	24.4
Male-to-male sexual contact ^f and injection drug use ^g	261	16	6.3	71	27.1	72	27.4	50	19.0	53	20.2
Heterosexual contact ^h	1,469	68	4.6	288	19.6	400	27.3	450	30.7	262	17.9
Other ⁱ	15	1	4.6	5	34.4	2	15.9	5	33.1	2	11.9
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	8,654	664	7.7	2,007	23.2	2,827	32.7	1,658	19.2	1,498	17.3
Metropolitan areas (pop. 50,000–499,999)	1,284	85	6.6	300	23.4	403	31.4	250	19.5	246	19.2
Nonmetropolitan areas (pop. < 50,000)	730	46	6.3	134	18.4	202	27.7	172	23.6	176	24.1
Subtotal	10,762	809	7.5	2,461	22.9	3,463	32.2	2,091	19.4	1,938	18.0

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Black/African American (cont)											
Female sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	485	33	6.8	162	33.4	158	32.6	49	10.1	83	17.1
25–34	993	70	7.0	299	30.1	306	30.8	151	15.2	167	16.8
35–44	801	36	4.5	206	25.7	229	28.6	192	24.0	138	17.2
45–54	639	30	4.7	152	23.8	174	27.2	178	27.9	105	16.4
55–64	380	14	3.7	88	23.2	104	27.4	110	28.9	64	16.8
≥65	138	4	2.9	40	29.0	29	21.0	48	34.8	17	12.3
Transmission category^e											
Injection drug use ^g	300	17	5.6	78	26.0	79	26.3	68	22.7	58	19.4
Heterosexual contact ^h	3,105	169	5.4	860	27.7	910	29.3	655	21.1	512	16.5
Other ⁱ	31	2	4.9	9	29.1	12	37.9	5	16.2	4	12.0
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	2,761	159	5.8	757	27.4	826	29.9	560	20.3	459	16.6
Metropolitan areas (pop. 50,000–499,999)	442	21	4.8	124	28.1	121	27.4	104	23.5	72	16.3
Nonmetropolitan areas (pop. < 50,000)	202	6	3.0	59	29.2	45	22.3	55	27.2	37	18.3
Subtotal	3,436	187	5.4	947	27.6	1,000	29.1	728	21.2	574	16.7
Total	14,198	996	7.0	3,408	24.0	4,463	31.4	2,819	19.9	2,512	17.7

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Hispanic/Latino^k											
Gender											
Man	9,622	794	8.3	2,489	25.9	3,222	33.5	2,063	21.4	1,054	11.0
Woman	1,282	62	4.8	362	28.2	379	29.6	293	22.9	186	14.5
Transgender woman ^c	331	35	10.6	96	29.0	124	37.5	38	11.5	38	11.5
Transgender man ^c	15	2	13.3	4	26.7	6	40.0	1	6.7	2	13.3
Additional gender identity ^d	20	5	25.0	7	35.0	7	35.0	1	5.0	0	0.0
Male sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	1,885	214	11.4	507	26.9	741	39.3	213	11.3	210	11.1
25–34	4,204	365	8.7	1,178	28.0	1,446	34.4	737	17.5	478	11.4
35–44	2,280	155	6.8	591	25.9	704	30.9	598	26.2	232	10.2
45–54	1,030	61	5.9	207	20.1	306	29.7	354	34.4	102	9.9
55–64	466	28	6.0	93	20.0	128	27.5	163	35.0	54	11.6
≥65	108	11	10.2	16	14.8	28	25.9	37	34.3	16	14.8
Transmission category^e											
Male-to-male sexual contact ^f	8,793	754	8.6	2,357	26.8	3,000	34.1	1,748	19.9	933	10.6
Injection drug use ^g	318	20	6.3	64	20.3	91	28.6	90	28.2	53	16.7
Male-to-male sexual contact ^f and injection drug use ^g	341	36	10.4	87	25.4	104	30.5	68	20.0	46	13.6
Heterosexual contact ^h	516	24	4.6	82	15.9	157	30.5	195	37.8	58	11.3
Other ⁱ	6	0	0.0	2	31.6	1	10.5	2	28.1	1	24.6
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	8,603	715	8.3	2,261	26.3	2,923	34.0	1,792	20.8	912	10.6
Metropolitan areas (pop. 50,000–499,999)	890	79	8.9	207	23.3	287	32.2	209	23.5	108	12.1
Nonmetropolitan areas (pop. < 50,000)	369	29	7.9	90	24.4	115	31.2	86	23.3	49	13.3
Subtotal	9,973	834	8.4	2,592	26.0	3,353	33.6	2,102	21.1	1,092	10.9

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Hispanic/Latino^k (cont)											
Female sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	168	11	6.5	64	38.1	61	36.3	9	5.4	23	13.7
25–34	409	23	5.6	119	29.1	136	33.3	75	18.3	56	13.7
35–44	343	13	3.8	99	28.9	87	25.4	86	25.1	58	16.9
45–54	205	5	2.4	45	22.0	64	31.2	66	32.2	25	12.2
55–64	129	10	7.8	30	23.3	27	20.9	43	33.3	19	14.7
≥65	43	2	4.7	9	20.9	10	23.3	15	34.9	7	16.3
Transmission category^e											
Injection drug use ^g	160	6	4.0	54	33.5	41	25.7	30	18.6	29	18.2
Heterosexual contact ^h	1,132	58	5.1	310	27.4	342	30.2	263	23.2	159	14.0
Other ⁱ	5	0	0.0	2	37.7	2	37.7	1	22.6	0	0.0
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	1,098	49	4.5	312	28.4	332	30.2	249	22.7	156	14.2
Metropolitan areas (pop. 50,000–499,999)	130	9	6.9	31	23.8	35	26.9	35	26.9	20	15.4
Nonmetropolitan areas (pop. < 50,000)	50	3	6.0	14	28.0	13	26.0	10	20.0	10	20.0
Subtotal	1,297	64	4.9	366	28.2	385	29.7	294	22.7	188	14.5
Total	11,270	898	8.0	2,958	26.2	3,738	33.2	2,396	21.3	1,280	11.4

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Native Hawaiian/other Pacific Islander											
Gender											
Man	67	3	4.5	15	22.4	13	19.4	18	26.9	18	26.9
Woman	12	1	8.3	5	41.7	4	33.3	1	8.3	1	8.3
Transgender woman ^c	4	1	25.0	0	0.0	0	0.0	1	25.0	2	50.0
Transgender man ^c	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Additional gender identity ^d	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Male sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	13	0	0.0	3	23.1	0	0.0	5	38.5	5	38.5
25–34	28	2	7.1	9	32.1	6	21.4	4	14.3	7	25.0
35–44	16	2	12.5	3	18.8	5	31.3	3	18.8	3	18.8
45–54	8	0	0.0	0	0.0	2	25.0	5	62.5	1	12.5
55–64	4	0	0.0	0	0.0	0	0.0	2	50.0	2	50.0
≥65	2	0	0.0	0	0.0	0	0.0	0	0.0	2	100
Transmission category^e											
Male-to-male sexual contact ^f	60	4	6.6	13	21.0	13	21.4	16	25.7	15	25.3
Injection drug use ^g	3	0	0.0	0	0.0	0	0.0	0	0.0	3	93.9
Male-to-male sexual contact ^f and injection drug use ^g	2	0	0.0	1	43.5	0	0.0	1	52.2	0	0.0
Heterosexual contact ^h	5	0	0.0	1	22.0	0	0.0	2	46.0	2	32.0
Other ⁱ	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	60	4	6.7	11	18.3	12	20.0	14	23.3	19	31.7
Metropolitan areas (pop. 50,000–499,999)	8	0	0.0	2	25.0	0	0.0	5	62.5	1	12.5
Nonmetropolitan areas (pop. < 50,000)	3	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0
Subtotal	71	4	5.6	15	21.1	13	18.3	19	26.8	20	28.2

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Native Hawaiian/other Pacific Islander (cont)											
Female sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	2	0	0.0	2	100	0	0.0	0	0.0	0	0.0
25–34	5	0	0.0	2	40.0	3	60.0	0	0.0	0	0.0
35–44	3	1	33.3	0	0.0	0	0.0	1	33.3	1	33.3
45–54	1	0	0.0	1	100	0	0.0	0	0.0	0	0.0
55–64	1	0	0.0	0	0.0	1	100	0	0.0	0	0.0
≥65	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Transmission category^e											
Injection drug use ^g	6	0	0.0	2	39.3	2	37.5	0	0.0	1	17.9
Heterosexual contact ^h	6	1	15.6	3	43.8	2	29.7	1	10.9	0	0.0
Other ⁱ	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	12	1	8.3	5	41.7	4	33.3	1	8.3	1	8.3
Metropolitan areas (pop. 50,000–499,999)	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Nonmetropolitan areas (pop. < 50,000)	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Subtotal	12	1	8.3	5	41.7	4	33.3	1	8.3	1	8.3
Total	83	5	6.0	20	24.1	17	20.5	20	24.1	21	25.3

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
White											
Gender											
Man	7,149	588	8.2	1,879	26.3	2,049	28.7	1,549	21.7	1,084	15.2
Woman	1,630	122	7.5	490	30.1	377	23.1	329	20.2	312	19.1
Transgender woman ^c	109	12	11.0	31	28.4	38	34.9	15	13.8	13	11.9
Transgender man ^c	19	2	10.5	7	36.8	6	31.6	3	15.8	1	5.3
Additional gender identity ^d	17	4	23.5	2	11.8	6	35.3	4	23.5	1	5.9
Male sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	816	104	12.7	275	33.7	271	33.2	72	8.8	94	11.5
25–34	2,460	208	8.5	702	28.5	789	32.1	367	14.9	394	16.0
35–44	1,777	146	8.2	467	26.3	461	25.9	402	22.6	301	16.9
45–54	1,097	76	6.9	248	22.6	281	25.6	340	31.0	152	13.9
55–64	864	48	5.6	174	20.1	221	25.6	300	34.7	121	14.0
≥65	259	22	8.5	46	17.8	69	26.6	87	33.6	35	13.5
Transmission category^e											
Male-to-male sexual contact ^f	5,628	486	8.6	1,519	27.0	1,630	29.0	1,191	21.2	801	14.2
Injection drug use ^g	635	38	5.9	132	20.8	182	28.7	143	22.5	141	22.2
Male-to-male sexual contact ^f and injection drug use ^g	613	60	9.8	187	30.6	167	27.2	105	17.1	94	15.3
Heterosexual contact ^h	389	19	4.9	73	18.8	112	28.8	127	32.7	57	14.7
Other ⁱ	9	1	5.7	1	8.0	2	18.4	2	24.1	4	43.7
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	5,092	452	8.9	1,347	26.5	1,486	29.2	1,087	21.3	720	14.1
Metropolitan areas (pop. 50,000–499,999)	1,316	99	7.5	345	26.2	397	30.2	258	19.6	217	16.5
Nonmetropolitan areas (pop. < 50,000)	796	44	5.5	195	24.5	197	24.7	211	26.5	149	18.7
Subtotal	7,273	604	8.3	1,912	26.3	2,092	28.8	1,568	21.6	1,097	15.1

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
White (cont)											
Female sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	150	10	6.7	60	40.0	32	21.3	18	12.0	30	20.0
25–34	447	32	7.2	159	35.6	107	23.9	56	12.5	93	20.8
35–44	491	44	9.0	152	31.0	119	24.2	92	18.7	84	17.1
45–54	306	20	6.5	79	25.8	73	23.9	75	24.5	59	19.3
55–64	199	14	7.0	40	20.1	40	20.1	74	37.2	31	15.6
≥65	58	4	6.9	7	12.1	13	22.4	17	29.3	17	29.3
Transmission category^e											
Injection drug use ^g	584	55	9.5	163	28.0	139	23.8	113	19.4	113	19.3
Heterosexual contact ^h	1,061	69	6.5	332	31.3	244	23.0	216	20.4	200	18.8
Other ⁱ	6	0	0.0	2	29.0	1	16.1	2	35.5	1	19.4
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	1,083	85	7.8	338	31.2	263	24.3	216	19.9	181	16.7
Metropolitan areas (pop. 50,000–499,999)	343	18	5.2	101	29.4	75	21.9	72	21.0	77	22.4
Nonmetropolitan areas (pop. < 50,000)	209	18	8.6	57	27.3	41	19.6	39	18.7	54	25.8
Subtotal	1,651	124	7.5	497	30.1	384	23.3	332	20.1	314	19.0
Total	8,924	728	8.2	2,409	27.0	2,476	27.7	1,900	21.3	1,411	15.8

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Multiracial											
Gender											
Man	749	52	6.9	226	30.2	230	30.7	157	21.0	84	11.2
Woman	220	13	5.9	81	36.8	49	22.3	49	22.3	28	12.7
Transgender woman ^c	36	5	13.9	14	38.9	11	30.6	2	5.6	4	11.1
Transgender man ^c	1	0	0.0	1	100	0	0.0	0	0.0	0	0.0
Additional gender identity ^d	3	0	0.0	1	33.3	1	33.3	1	33.3	0	0.0
Male sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	186	22	11.8	65	34.9	64	34.4	19	10.2	16	8.6
25–34	332	23	6.9	99	29.8	102	30.7	67	20.2	41	12.3
35–44	147	8	5.4	45	30.6	38	25.9	36	24.5	20	13.6
45–54	70	3	4.3	22	31.4	21	30.0	20	28.6	4	5.7
55–64	37	1	2.7	9	24.3	11	29.7	13	35.1	3	8.1
≥65	16	0	0.0	1	6.3	6	37.5	5	31.3	4	25.0
Transmission category^e											
Male-to-male sexual contact ^f	650	50	7.8	195	30.1	203	31.3	134	20.6	67	10.3
Injection drug use ^g	43	2	3.7	18	40.9	10	24.1	6	13.6	8	17.8
Male-to-male sexual contact ^f and injection drug use ^g	50	3	5.4	16	32.4	18	35.0	7	12.9	7	14.3
Heterosexual contact ^h	44	2	5.2	12	26.0	11	23.9	14	31.2	6	13.8
Other ⁱ	1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	603	48	8.0	188	31.2	186	30.8	111	18.4	70	11.6
Metropolitan areas (pop. 50,000–499,999)	121	8	6.6	34	28.1	40	33.1	25	20.7	14	11.6
Nonmetropolitan areas (pop. < 50,000)	60	1	1.7	18	30.0	14	23.3	24	40.0	3	5.0
Subtotal	788	57	7.2	241	30.6	242	30.7	160	20.3	88	11.2

Table 1c. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Multiracial (cont)											
Female sex at birth (≥13 yr at diagnosis)											
Age at diagnosis (yr)											
13–24	32	4	12.5	16	50.0	6	18.8	4	12.5	2	6.3
25–34	64	2	3.1	23	35.9	15	23.4	12	18.8	12	18.8
35–44	61	4	6.6	22	36.1	15	24.6	13	21.3	7	11.5
45–54	36	2	5.6	12	33.3	9	25.0	9	25.0	4	11.1
55–64	21	0	0.0	9	42.9	4	19.0	7	33.3	1	4.8
≥65	7	1	14.3	0	0.0	0	0.0	4	57.1	2	28.6
Transmission category^e											
Injection drug use ^g	42	5	12.2	13	32.1	6	15.1	8	19.9	9	20.6
Heterosexual contact ^h	178	8	4.4	68	38.4	43	23.9	40	22.3	19	10.9
Other ⁱ	2	0	0.0	0	0.0	0	0.0	1	64.7	0	0.0
Population area of residence^j											
Metropolitan statistical areas (pop. ≥500,000)	162	12	7.4	59	36.4	34	21.0	36	22.2	21	13.0
Metropolitan areas (pop. 50,000–499,999)	34	0	0.0	14	41.2	7	20.6	11	32.4	2	5.9
Nonmetropolitan areas (pop. < 50,000)	21	1	4.8	8	38.1	6	28.6	2	9.5	4	19.0
Subtotal	221	13	5.9	82	37.1	49	22.2	49	22.2	28	12.7
Total	1,009	70	6.9	323	32.0	291	28.8	209	20.7	116	11.5

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); pop., population; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after HIV diagnosis. Data are based on residence at HIV diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Determined by a first confirmed positive HIV test result of any type within 6 months after a negative or indeterminate HIV test result, or by a sequence of laboratory tests that demonstrate the presence of HIV-specific viral markers within 6 months before or after a negative or indeterminate antibody test result. The diagnosis of an AIDS-defining condition or a low CD4 test result within the first 6 months after the stage 0 at HIV diagnosis classification does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

^c “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^d Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^e Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^f Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^g Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^h Heterosexual contact with a person known to have, or with a risk factor for, HIV.

ⁱ Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^j Population area of residence defined by the U.S. Office of Management and Budget.

^k Hispanic/Latino persons can be of any race.

Table 1d. Stage of disease at time of HIV diagnosis during 2022 among males, based on sex assigned at birth, aged ≥13 years with HIV attributed to male-to-male sexual contact, by race/ethnicity and age at diagnosis—48 states and the District of Columbia

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
American Indian/Alaska Native											
13–24	23	3	12.8	7	29.1	10	41.5	4	16.7	0	0.0
25–34	48	2	4.2	13	27.1	15	31.7	12	24.6	6	12.4
35–44	28	3	10.6	7	24.1	8	27.3	8	28.0	3	9.9
45–54	5	0	0.0	1	11.5	1	19.2	4	69.2	0	0.0
55–64	6	0	0.0	2	39.3	1	23.0	2	27.9	1	9.8
≥65	2	0	0.0	1	52.6	0	0.0	0	0.0	1	47.4
Subtotal	112	8	7.1	31	27.1	35	31.0	29	25.6	10	9.1
Asian											
13–24	101	11	10.9	22	21.9	48	47.5	10	10.0	10	9.8
25–34	245	19	7.8	55	22.4	94	38.2	57	23.2	21	8.4
35–44	153	10	6.5	38	24.8	42	27.5	48	31.6	15	9.7
45–54	76	5	6.3	10	12.7	20	26.4	36	47.6	5	6.9
55–64	28	0	0.0	4	12.4	9	31.8	11	40.3	4	15.5
≥65	5	0	0.0	0	0.0	1	20.0	1	22.0	3	58.0
Subtotal	608	45	7.3	128	21.1	214	35.1	164	27.0	58	9.5
Black/African American											
13–24	2,778	296	10.7	683	24.6	1,043	37.5	276	9.9	480	17.3
25–34	3,679	301	8.2	868	23.6	1,199	32.6	653	17.8	658	17.9
35–44	1,315	73	5.5	291	22.2	422	32.1	307	23.4	221	16.8
45–54	512	26	5.0	101	19.7	121	23.7	165	32.3	99	19.4
55–64	280	6	2.0	55	19.8	91	32.7	72	25.9	55	19.7
≥65	75	2	3.2	16	21.0	19	25.4	23	30.2	15	20.3
Subtotal	8,638	703	8.1	2,015	23.3	2,896	33.5	1,496	17.3	1,529	17.7
Hispanic/Latino^c											
13–24	1,783	206	11.5	476	26.7	708	39.7	200	11.2	193	10.8
25–34	3,811	341	8.9	1,091	28.6	1,320	34.6	644	16.9	415	10.9
35–44	1,942	134	6.9	519	26.8	603	31.0	495	25.5	191	9.8
45–54	831	46	5.5	182	21.9	258	31.0	265	31.9	81	9.7
55–64	356	21	6.0	77	21.6	96	26.9	119	33.4	43	12.2
≥65	70	7	10.6	12	17.5	17	23.7	24	34.3	10	13.9
Subtotal	8,793	754	8.6	2,357	26.8	3,000	34.1	1,748	19.9	933	10.6
Native Hawaiian/other Pacific Islander											
13–24	13	0	0.0	3	23.1	0	0.0	5	38.5	5	38.5
25–34	25	2	8.1	7	27.1	6	24.3	3	12.1	7	28.3
35–44	14	2	14.4	3	21.6	5	36.0	3	20.9	1	7.2
45–54	6	0	0.0	0	0.0	2	32.8	3	51.7	1	15.5
55–64	3	0	0.0	0	0.0	0	0.0	2	64.0	1	36.0
≥65	1	0	0.0	0	0.0	0	0.0	0	0.0	1	100
Subtotal	60	4	6.6	13	21.0	13	21.4	16	25.7	15	25.3

Table 1d. Stage of disease at time of HIV diagnosis during 2022 among males, based on sex assigned at birth, aged ≥13 years with HIV attributed to male-to-male sexual contact, by race/ethnicity and age at diagnosis—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4 = 200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
White											
13–24	728	101	13.8	240	32.9	246	33.8	63	8.7	78	10.8
25–34	1,914	164	8.6	555	29.0	617	32.2	287	15.0	291	15.2
35–44	1,312	103	7.9	355	27.1	343	26.2	302	23.0	209	15.9
45–54	813	63	7.7	191	23.5	200	24.6	255	31.3	105	12.9
55–64	670	38	5.6	143	21.4	171	25.6	224	33.4	94	14.0
≥65	192	18	9.6	35	18.2	52	27.1	62	32.2	25	12.9
Subtotal	5,628	486	8.6	1,519	27.0	1,630	29.0	1,191	21.2	801	14.2
Multiracial											
13–24	169	20	11.8	59	34.5	59	35.1	17	9.7	15	8.9
25–34	291	20	7.0	89	30.4	89	30.5	61	21.1	32	11.0
35–44	106	7	7.0	29	26.9	27	25.1	29	27.3	15	13.7
45–54	52	2	4.4	14	26.9	18	34.2	16	31.1	2	3.4
55–64	20	0	0.0	5	24.6	7	33.0	8	36.9	1	3.9
≥65	11	0	0.0	1	6.7	4	37.1	3	29.5	3	26.7
Subtotal	650	50	7.8	195	30.1	203	31.3	134	20.6	67	10.3
All											
13–24	5,595	636	11.4	1,489	26.6	2,113	37.8	575	10.3	782	14.0
25–34	10,012	849	8.5	2,678	26.7	3,340	33.4	1,717	17.1	1,429	14.3
35–44	4,870	332	6.8	1,242	25.5	1,450	29.8	1,192	24.5	653	13.4
45–54	2,296	141	6.1	498	21.7	620	27.0	744	32.4	293	12.8
55–64	1,362	65	4.8	286	21.0	375	27.6	437	32.1	199	14.6
≥65	354	28	8.0	64	18.2	92	26.1	112	31.7	57	16.0
Total	24,490	2,051	8.4	6,258	25.6	7,990	32.6	4,778	19.5	3,413	13.9

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); pop., population; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after HIV diagnosis. Data are based on residence at HIV diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total. Persons whose transmission category is classified as male-to-male sexual contact are presented based on sex assigned at birth and include transgender persons and additional gender identity persons.

^a Determined by a first confirmed positive HIV test result of any type within 6 months after a negative or indeterminate HIV test result, or by a sequence of laboratory tests that demonstrate the presence of HIV-specific viral markers within 6 months before or after a negative or indeterminate antibody test result. The diagnosis of an AIDS-defining condition or a low CD4 test result within the first 6 months after the stage 0 at HIV diagnosis classification does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

^c Hispanic/Latino persons can be of any race.

Table 1e. Stage of disease at time of HIV diagnosis during 2022 among transgender and additional gender identity persons aged ≥13 years, by selected characteristics—48 states and the District of Columbia

	Total No.	Stage 1				Stage 2		Stage 3 (AIDS)		Stage unknown ^b	
		Stage 0 ^a		(CD4 ≥500 cells/mm ³ or ≥26%)		(CD4=200–499 cells/mm ³ or 14%–25%)		(OI or CD4 <200 cells/mm ³ or <14%)			
		No.	%	No.	%	No.	%	No.	%	No.	%
Transgender woman^c											
Age at diagnosis (yr)											
13–24	267	30	11.2	79	29.6	94	35.2	21	7.9	43	16.1
25–34	377	36	9.5	114	30.2	133	35.3	48	12.7	46	12.2
35–44	133	16	12.0	38	28.6	47	35.3	21	15.8	11	8.3
45–54	54	5	9.3	16	29.6	16	29.6	10	18.5	7	13.0
≥55	20	1	5.0	9	45.0	7	35.0	2	10.0	1	5.0
Race/ethnicity											
American Indian/Alaska Native	6	0	0.0	2	33.3	3	50.0	1	16.7	0	0.0
Asian	14	1	7.1	3	21.4	6	42.9	3	21.4	1	7.1
Black/African American	351	34	9.7	110	31.3	115	32.8	42	12.0	50	14.2
Hispanic/Latino ^d	331	35	10.6	96	29.0	124	37.5	38	11.5	38	11.5
Native Hawaiian/ other Pacific Islander	4	1	25.0	0	0.0	0	0.0	1	25.0	2	50.0
White	109	12	11.0	31	28.4	38	34.9	15	13.8	13	11.9
Multiracial	36	5	13.9	14	38.9	11	30.6	2	5.6	4	11.1
Exposure category^e											
Sexual contact ^f	757	78	10.3	223	29.5	268	35.4	91	12.0	97	12.8
Injection drug use ^g	3	0	0.0	0	0.0	1	33.3	2	66.7	0	0.0
Sexual contact ^f and injection drug use ^g	55	9	16.4	20	36.4	16	29.1	4	7.3	6	10.9
Other ^h	36	1	2.8	13	36.1	12	33.3	5	13.9	5	13.9
Subtotal	851	88	10.3	256	30.1	297	34.9	102	12.0	108	12.7
Transgender man^c											
Age at diagnosis (yr)											
13–24	18	1	5.6	6	33.3	9	50.0	1	5.6	1	5.6
25–34	31	4	12.9	12	38.7	11	35.5	1	3.2	3	9.7
35–44	7	1	14.3	4	57.1	0	0.0	1	14.3	1	14.3
45–54	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
≥55	1	0	0.0	0	0.0	0	0.0	1	100	0	0.0
Race/ethnicity											
American Indian/Alaska Native	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asian	1	0	0.0	0	0.0	1	100	0	0.0	0	0.0
Black/African American	23	2	8.7	11	47.8	8	34.8	0	0.0	2	8.7
Hispanic/Latino ^d	15	2	13.3	4	26.7	6	40.0	1	6.7	2	13.3
Native Hawaiian/ other Pacific Islander	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
White	19	2	10.5	7	36.8	6	31.6	3	15.8	1	5.3
Multiracial	1	0	0.0	1	100	0	0.0	0	0.0	0	0.0
Exposure category^e											
Sexual contact ^f	53	6	11.3	20	37.7	20	37.7	3	5.7	4	7.5
Injection drug use ^g	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Sexual contact ^f and injection drug use ^g	1	0	0.0	1	100	0	0.0	0	0.0	0	0.0
Other ^h	5	0	0.0	2	40.0	1	20.0	1	20.0	1	20.0
Subtotal	59	6	10.2	23	39.0	21	35.6	4	6.8	5	8.5

Table 1e. Stage of disease at time of HIV diagnosis during 2022 among transgender and additional gender identity persons aged ≥13 years, by selected characteristics—48 states and the District of Columbia (cont)

	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4=200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Additional gender identityⁱ											
Age at diagnosis (yr)											
13–24	21	4	19.0	6	28.6	8	38.1	1	4.8	2	9.5
25–34	32	6	18.8	8	25.0	11	34.4	6	18.8	1	3.1
35–44	9	1	11.1	2	22.2	3	33.3	3	33.3	0	0.0
45–54	2	0	0.0	0	0.0	0	0.0	2	100	0	0.0
≥55	1	0	0.0	0	0.0	0	0.0	1	100	0	0.0
Race/ethnicity											
American Indian/Alaska Native	1	0	0.0	0	0.0	0	0.0	1	100	0	0.0
Asian	5	1	20.0	0	0.0	3	60.0	1	20.0	0	0.0
Black/African American	19	1	5.3	6	31.6	5	26.3	5	26.3	2	10.5
Hispanic/Latino ^d	20	5	25.0	7	35.0	7	35.0	1	5.0	0	0.0
Native Hawaiian/ other Pacific Islander	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
White	17	4	23.5	2	11.8	6	35.3	4	23.5	1	5.9
Multiracial	3	0	0.0	1	33.3	1	33.3	1	33.3	0	0.0
Exposure category^e											
Sexual contact ^f	58	10	17.2	15	25.9	19	32.8	12	20.7	2	3.4
Injection drug use ^g	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Sexual contact ^f and injection drug use ^g	6	1	16.7	1	16.7	2	33.3	1	16.7	1	16.7
Other ^h	1	0	0.0	0	0.0	1	100	0	0.0	0	0.0
Subtotal	65	11	16.9	16	24.6	22	33.8	13	20.0	3	4.6
Total	975	105	10.8	295	30.3	340	34.9	119	12.2	116	11.9

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Stage of disease at time of HIV diagnosis is based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after HIV diagnosis. Data are based on residence at HIV diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Determined by a first confirmed positive HIV test result of any type within 6 months after a negative or indeterminate HIV test result, or by a sequence of laboratory tests that demonstrate the presence of HIV-specific viral markers within 6 months before or after a negative or indeterminate antibody test result. The diagnosis of an AIDS-defining condition or a low CD4 test result within the first 6 months after the stage 0 at HIV diagnosis classification does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

^c “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^d Hispanic/Latino persons can be of any race.

^e Risk factor data for transgender and additional gender identity persons aged ≥13 years are presented using the exposure category classification, which is meant to convey all the known ways the person could have been exposed to HIV. Exposure categories are mutually exclusive and have no presumed hierarchical order of probability, except for rare circumstances where route of transmission has been confirmed through investigation. See Technical Notes for more information on exposure categories.

^f For persons assigned “male” sex at birth, sexual contact with any person. For persons assigned “female” sex at birth, sexual contact with a person assigned “male” sex at birth.

^g Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^h Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified. Data were not statistically adjusted to account for missing exposure category; therefore, case counts for “Other” might be high.

ⁱ Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

Table 2a. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥13 years, by selected characteristics—48 states and the District of Columbia

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression	
		≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤ 6 months	
		No.	%	No.	%	No.	%
Gender							
Man	28,785	23,563	81.9	5,222	18.1	19,895	69.1
Woman	6,710	5,373	80.1	1,337	19.9	4,482	66.8
Transgender woman ^a	851	700	82.3	151	17.7	577	67.8
Transgender man ^a	59	53	89.8	6	10.2	53	89.8
Additional gender identity ^b	65	64	98.5	1	1.5	58	89.2
Age at diagnosis (yr)							
13–24	6,884	5,530	80.3	1,354	19.7	4,804	69.8
25–34	13,572	11,052	81.4	2,520	18.6	9,410	69.3
35–44	8,017	6,578	82.1	1,439	17.9	5,519	68.8
45–54	4,400	3,618	82.2	782	17.8	2,929	66.6
55–64	2,753	2,282	82.9	471	17.1	1,842	66.9
≥65	844	693	82.1	151	17.9	561	66.5
Race/ethnicity							
American Indian/Alaska Native	213	166	77.9	47	22.1	131	61.5
Asian	773	681	88.1	92	11.9	604	78.1
Black/African American	14,198	11,117	78.3	3,081	21.7	9,205	64.8
Hispanic/Latino ^c	11,270	9,576	85.0	1,694	15.0	8,288	73.5
Native Hawaiian/other Pacific Islander	83	61	73.5	22	26.5	50	60.2
White	8,924	7,326	82.1	1,598	17.9	6,078	68.1
Multiracial	1,009	826	81.9	183	18.1	709	70.3
Transmission category^d							
Male-to-male sexual contact ^e	24,490	20,212	82.5	4,278	17.5	17,307	70.7
Injection drug use ^f	2,532	1,925	76.0	607	24.0	1,379	54.5
Male	1,408	1,060	75.3	348	24.7	765	54.3
Female	1,124	864	76.9	259	23.1	614	54.6
Male-to-male sexual contact ^e and injection drug use ^f	1,298	1,047	80.7	251	19.3	809	62.4
Heterosexual contact ^g	8,073	6,506	80.6	1,567	19.4	5,518	68.4
Male	2,468	1,977	80.1	491	19.9	1,626	65.9
Female	5,605	4,529	80.8	1,076	19.2	3,893	69.5
Other ^h	78	64	81.7	14	18.3	52	66.2
Male	31	24	78.0	7	22.0	18	57.2
Female	47	39	84.3	7	15.7	34	72.3
Population area of residenceⁱ							
Metropolitan statistical areas (pop. ≥500,000)	28,912	23,816	82.4	5,096	17.6	20,068	69.4
Metropolitan areas (pop. 50,000–499,999)	4,687	3,724	79.5	963	20.5	3,124	66.7
Nonmetropolitan areas (pop. < 50,000)	2,517	1,942	77.2	575	22.8	1,646	65.4
Total	36,470	29,753	81.6	6,717	18.4	25,065	68.7

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (cells/mL); pop., population; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Linkage to HIV medical care was measured by documentation of ≥1 CD4 or VL tests ≤1 month after HIV diagnosis. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are within 6 months of HIV diagnosis during 2022. Data are based on residence at HIV diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^b Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^c Hispanic/Latino persons can be of any race.

^d Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^e Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^f Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^g Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^h Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

ⁱ Population area of residence defined by the U.S. Office of Management and Budget.

Table 2b. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥13 years, by area of residence—48 states and the District of Columbia

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression VL <200 copies/mL ≤6 months	
		≥1 CD4 or VL tests		No CD4 or VL test		No.	%
		No.	%	No.	%		
Alabama	701	552	78.7	149	21.3	450	64.2
Alaska	38	34	89.5	4	10.5	31	81.6
Arizona	860	722	84.0	138	16.0	590	68.6
Arkansas	305	247	81.0	58	19.0	228	74.8
California	4,856	3,986	82.1	870	17.9	3,250	66.9
Colorado	433	365	84.3	68	15.7	305	70.4
Connecticut	220	186	84.5	34	15.5	149	67.7
Delaware	128	105	82.0	23	18.0	90	70.3
District of Columbia	211	182	86.3	29	13.7	140	66.4
Florida	4,290	3,552	82.8	738	17.2	3,053	71.2
Georgia	2,511	2,014	80.2	497	19.8	1,702	67.8
Hawaii	78	66	84.6	12	15.4	50	64.1
Illinois	1,306	1,087	83.2	219	16.8	927	71.0
Indiana	612	472	77.1	140	22.9	422	69.0
Iowa	123	113	91.9	10	8.1	105	85.4
Kansas	133	119	89.5	14	10.5	99	74.4
Kentucky	405	319	78.8	86	21.2	271	66.9
Louisiana	856	676	79.0	180	21.0	587	68.6
Maine	41	38	92.7	3	7.3	32	78.0
Maryland	748	638	85.3	110	14.7	524	70.1
Massachusetts	438	387	88.4	51	11.6	352	80.4
Michigan	629	541	86.0	88	14.0	469	74.6
Minnesota	261	224	85.8	37	14.2	206	78.9
Mississippi ^a	448	235	52.5	213	47.5	178	39.7
Missouri	512	415	81.1	97	18.9	376	73.4
Montana	11	8	72.7	3	27.3	10	90.9
Nebraska	91	78	85.7	13	14.3	67	73.6
Nevada	528	467	88.4	61	11.6	379	71.8
New Hampshire	28	20	71.4	8	28.6	23	82.1
New Mexico	94	83	88.3	11	11.7	63	67.0
New York	2,226	1,923	86.4	303	13.6	1,714	77.0
North Carolina	1,353	1,084	80.1	269	19.9	986	72.9
North Dakota	38	34	89.5	4	10.5	21	55.3
Ohio	855	699	81.8	156	18.2	572	66.9
Oklahoma	394	318	80.7	76	19.3	284	72.1
Oregon	250	206	82.4	44	17.6	180	72.0
Pennsylvania	954	788	82.6	166	17.4	670	70.2
Rhode Island	68	62	91.2	6	8.8	60	88.2
South Carolina	717	560	78.1	157	21.9	429	59.8
South Dakota	40	28	70.0	12	30.0	24	60.0
Tennessee	860	601	69.9	259	30.1	528	61.4
Texas	4,896	3,913	79.9	983	20.1	3,111	63.5
Utah	155	125	80.6	30	19.4	117	75.5
Vermont	4	4	100	0	0.0	3	75.0
Virginia	834	684	82.0	150	18.0	572	68.6
Washington	491	433	88.2	58	11.8	374	76.2
West Virginia ^a	136	85	62.5	51	37.5	40	29.4
Wisconsin	291	263	90.4	28	9.6	248	85.2
Wyoming	13	12	92.3	1	7.7	4	30.8
Region of residence^b							
Northeast (excluding NJ)	3,979	3,408	85.6	571	14.4	3,003	75.5
Midwest	4,891	4,073	83.3	818	16.7	3,536	72.3
Southeast	19,793	15,765	79.6	4,028	20.4	13,173	66.6
West (excluding ID)	7,807	6,507	83.3	1,300	16.7	5,353	68.6

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (cells/mL); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Linkage to HIV medical care was measured by documentation of ≥1 CD4 or VL tests ≤1 month after HIV diagnosis. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are within 6 months of HIV diagnosis during 2022. Data are based on residence at HIV diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Data should be interpreted with caution due to lapse in laboratory data completeness that occurred during the year 2022.

^b Region of residence defined by the U.S. Census Bureau. Data should be interpreted with caution as areas with incomplete reporting to CDC are included.

Table 2c. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression	
		≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤6 months	
		No.	%	No.	%	No.	%
American Indian/Alaska Native							
Gender							
Man	149	120	80.5	29	19.5	94	63.1
Woman	57	40	70.2	17	29.8	32	56.1
Transgender woman ^a	6	5	83.3	1	16.7	4	66.7
Transgender man ^a	0	0	0.0	0	0.0	0	0.0
Additional gender identity ^b	1	1	100	0	0.0	1	100
Male sex at birth (≥13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	27	25	92.6	2	7.4	18	66.7
25–34	63	49	77.8	14	22.2	37	58.7
35–44	44	35	79.5	9	20.5	30	68.2
45–54	9	7	77.8	2	22.2	7	77.8
55–64	11	9	81.8	2	18.2	6	54.5
≥65	2	1	50.0	1	50.0	1	50.0
Transmission category^c							
Male-to-male sexual contact ^d	112	97	86.6	15	13.4	73	65.2
Injection drug use ^e	15	11	69.9	5	30.1	9	56.9
Male-to-male sexual contact ^d and injection drug use ^e	18	13	76.6	4	23.4	12	69.7
Heterosexual contact ^f	11	4	41.5	6	58.5	5	43.4
Other ^g	0	0	0.0	0	0.0	0	0.0
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	70	60	85.7	10	14.3	46	65.7
Metropolitan areas (pop. 50,000–499,999)	37	31	83.8	6	16.2	25	67.6
Nonmetropolitan areas (pop. < 50,000)	47	34	72.3	13	27.7	26	55.3
Subtotal	156	126	80.8	30	19.2	99	63.5
Female sex at birth (≥13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	7	4	57.1	3	42.9	4	57.1
25–34	21	13	61.9	8	38.1	9	42.9
35–44	13	11	84.6	2	15.4	8	61.5
45–54	14	10	71.4	4	28.6	10	71.4
55–64	2	2	100	0	0.0	1	50.0
≥65	0	0	0.0	0	0.0	0	0.0
Transmission category^c							
Injection drug use ^e	26	16	61.2	10	38.8	11	43.0
Heterosexual contact ^f	31	24	77.5	7	22.5	21	66.9
Other ^g	0	0	0.0	0	0.0	0	0.0
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	31	23	74.2	8	25.8	18	58.1
Metropolitan areas (pop. 50,000–499,999)	8	5	62.5	3	37.5	5	62.5
Nonmetropolitan areas (pop. < 50,000)	18	12	66.7	6	33.3	9	50.0
Subtotal	57	40	70.2	17	29.8	32	56.1
Total	213	166	77.9	47	22.1	131	61.5

Table 2c. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥ 13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression	
		≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤6 months	
		No.	%	No.	%	No.	%
Asian							
Gender							
Man	653	582	89.1	71	10.9	507	77.6
Woman	100	79	79.0	21	21.0	82	82.0
Transgender woman ^a	14	14	100	0	0.0	10	71.4
Transgender man ^a	1	1	100	0	0.0	1	100
Additional gender identity ^b	5	5	100	0	0.0	4	80.0
Male sex at birth (≥ 13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	106	94	88.7	12	11.3	94	88.7
25–34	257	231	89.9	26	10.1	195	75.9
35–44	173	154	89.0	19	11.0	134	77.5
45–54	89	82	92.1	7	7.9	67	75.3
55–64	40	35	87.5	5	12.5	28	70.0
≥65	7	5	71.4	2	28.6	3	42.9
Transmission category^c							
Male-to-male sexual contact ^d	608	544	89.5	64	10.5	476	78.2
Injection drug use ^e	15	13	84.1	2	15.9	8	53.0
Male-to-male sexual contact ^d and injection drug use ^e	13	10	80.2	3	19.8	8	64.3
Heterosexual contact ^f	35	33	94.0	2	6.0	29	82.0
Other ^g	1	1	100	0	0.0	1	55.6
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	596	535	89.8	61	10.2	458	76.8
Metropolitan areas (pop. 50,000–499,999)	64	56	87.5	8	12.5	51	79.7
Nonmetropolitan areas (pop. < 50,000)	9	8	88.9	1	11.1	9	100
Subtotal	672	601	89.4	71	10.6	521	77.5
Female sex at birth (≥ 13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	8	6	75.0	2	25.0	5	62.5
25–34	32	24	75.0	8	25.0	25	78.1
35–44	29	24	82.8	5	17.2	24	82.8
45–54	18	14	77.8	4	22.2	16	88.9
55–64	8	7	87.5	1	12.5	8	100
≥65	6	5	83.3	1	16.7	5	83.3
Transmission category^c							
Injection drug use ^e	7	6	88.1	1	11.9	6	89.6
Heterosexual contact ^f	92	73	79.3	19	20.7	76	82.5
Other ^g	2	1	47.8	1	52.2	1	47.8
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	87	69	79.3	18	20.7	72	82.8
Metropolitan areas (pop. 50,000–499,999)	10	9	90.0	1	10.0	8	80.0
Nonmetropolitan areas (pop. < 50,000)	3	1	33.3	2	66.7	2	66.7
Subtotal	101	80	79.2	21	20.8	83	82.2
Total	773	681	88.1	92	11.9	604	78.1

Table 2c. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥ 13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression	
		≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤6 months	
		No.	%	No.	%	No.	%
Black/African American							
Gender							
Man	10,396	8,082	77.7	2,314	22.3	6,618	63.7
Woman	3,409	2,716	79.7	693	20.3	2,326	68.2
Transgender woman ^a	351	279	79.5	72	20.5	226	64.4
Transgender man ^a	23	21	91.3	2	8.7	20	87.0
Additional gender identity ^b	19	19	100	0	0.0	15	78.9
Male sex at birth (≥ 13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	2,999	2,324	77.5	675	22.5	1,923	64.1
25–34	4,257	3,319	78.0	938	22.0	2,746	64.5
35–44	1,839	1,446	78.6	393	21.4	1,187	64.5
45–54	878	674	76.8	204	23.2	540	61.5
55–64	591	456	77.2	135	22.8	349	59.1
≥65	198	157	79.3	41	20.7	111	56.1
Transmission category^c							
Male-to-male sexual contact ^d	8,638	6,750	78.1	1,888	21.9	5,591	64.7
Injection drug use ^e	379	276	72.8	103	27.2	195	51.5
Male-to-male sexual contact ^d and injection drug use ^e	261	198	75.9	63	24.1	146	55.9
Heterosexual contact ^f	1,469	1,139	77.6	329	22.4	915	62.3
Other ^g	15	13	84.1	2	15.9	9	61.6
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	8,654	6,825	78.9	1,829	21.1	5,564	64.3
Metropolitan areas (pop. 50,000–499,999)	1,284	969	75.5	315	24.5	798	62.1
Nonmetropolitan areas (pop. < 50,000)	730	510	69.9	220	30.1	433	59.3
Subtotal	10,762	8,376	77.8	2,386	22.2	6,856	63.7
Female sex at birth (≥ 13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	485	374	77.1	111	22.9	359	74.0
25–34	993	809	81.5	184	18.5	678	68.3
35–44	801	633	79.0	168	21.0	536	66.9
45–54	639	498	77.9	141	22.1	424	66.4
55–64	380	310	81.6	70	18.4	253	66.6
≥65	138	117	84.8	21	15.2	99	71.7
Transmission category^c							
Injection drug use ^e	300	232	77.3	68	22.7	180	60.2
Heterosexual contact ^f	3,105	2,483	79.9	623	20.1	2,146	69.1
Other ^g	31	27	87.1	4	12.9	23	73.5
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	2,761	2,214	80.2	547	19.8	1,886	68.3
Metropolitan areas (pop. 50,000–499,999)	442	346	78.3	96	21.7	305	69.0
Nonmetropolitan areas (pop. < 50,000)	202	159	78.7	43	21.3	138	68.3
Subtotal	3,436	2,741	79.8	695	20.2	2,349	68.4
Total	14,198	11,117	78.3	3,081	21.7	9,205	64.8

Table 2c. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥ 13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression	
		≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤6 months	
		No.	%	No.	%	No.	%
		Hispanic/Latinoⁱ					
Gender							
Man	9,622	8,210	85.3	1,412	14.7	7,125	74.0
Woman	1,282	1,060	82.7	222	17.3	898	70.0
Transgender woman ^a	331	275	83.1	56	16.9	233	70.4
Transgender man ^a	15	12	80.0	3	20.0	13	86.7
Additional gender identity ^b	20	19	95.0	1	5.0	19	95.0
Male sex at birth (≥ 13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	1,885	1,571	83.3	314	16.7	1,387	73.6
25–34	4,204	3,575	85.0	629	15.0	3,169	75.4
35–44	2,280	1,976	86.7	304	13.3	1,702	74.6
45–54	1,030	893	86.7	137	13.3	716	69.5
55–64	466	403	86.5	63	13.5	332	71.2
≥65	108	86	79.6	22	20.4	71	65.7
Transmission category^c							
Male-to-male sexual contact ^d	8,793	7,519	85.5	1,274	14.5	6,613	75.2
Injection drug use ^e	318	254	79.8	64	20.2	180	56.6
Male-to-male sexual contact ^d and injection drug use ^e	341	286	83.9	55	16.1	210	61.7
Heterosexual contact ^f	516	441	85.6	75	14.4	371	71.9
Other ^g	6	4	70.2	2	29.8	3	47.4
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	8,603	7,370	85.7	1,233	14.3	6,410	74.5
Metropolitan areas (pop. 50,000–499,999)	890	759	85.3	131	14.7	651	73.1
Nonmetropolitan areas (pop. < 50,000)	369	294	79.7	75	20.3	248	67.2
Subtotal	9,973	8,504	85.3	1,469	14.7	7,377	74.0
Female sex at birth (≥ 13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	168	143	85.1	25	14.9	125	74.4
25–34	409	344	84.1	65	15.9	283	69.2
35–44	343	279	81.3	64	18.7	242	70.6
45–54	205	171	83.4	34	16.6	143	69.8
55–64	129	101	78.3	28	21.7	88	68.2
≥65	43	34	79.1	9	20.9	30	69.8
Transmission category^c							
Injection drug use ^e	160	127	79.3	33	20.7	99	61.9
Heterosexual contact ^f	1,132	941	83.1	191	16.9	808	71.4
Other ^g	5	4	79.2	1	20.8	4	67.9
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	1,098	905	82.4	193	17.6	765	69.7
Metropolitan areas (pop. 50,000–499,999)	130	111	85.4	19	14.6	93	71.5
Nonmetropolitan areas (pop. < 50,000)	50	39	78.0	11	22.0	37	74.0
Subtotal	1,297	1,072	82.7	225	17.3	911	70.2
Total	11,270	9,576	85.0	1,694	15.0	8,288	73.5

Table 2c. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥ 13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression	
		≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤6 months	
		No.	%	No.	%	No.	%
Native Hawaiian/other Pacific Islander							
Gender							
Man	67	50	74.6	17	25.4	41	61.2
Woman	12	9	75.0	3	25.0	6	50.0
Transgender woman ^a	4	2	50.0	2	50.0	3	75.0
Transgender man ^a	0	0	0.0	0	0.0	0	0.0
Additional gender identity ^b	0	0	0.0	0	0.0	0	0.0
Male sex at birth (≥ 13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	13	9	69.2	4	30.8	6	46.2
25–34	28	20	71.4	8	28.6	17	60.7
35–44	16	13	81.3	3	18.8	11	68.8
45–54	8	7	87.5	1	12.5	6	75.0
55–64	4	3	75.0	1	25.0	4	100
≥65	2	0	0.0	2	100	0	0.0
Transmission category^c							
Male-to-male sexual contact ^d	60	46	76.2	14	23.8	38	62.9
Injection drug use ^e	3	0	0.0	3	93.9	1	36.4
Male-to-male sexual contact ^d and injection drug use ^e	2	2	100	0	0.0	2	100
Heterosexual contact ^f	5	4	70.0	2	30.0	3	50.0
Other ^g	0	0	0.0	0	0.0	0	0.0
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	60	42	70.0	18	30.0	37	61.7
Metropolitan areas (pop. 50,000–499,999)	8	7	87.5	1	12.5	4	50.0
Nonmetropolitan areas (pop. < 50,000)	3	3	100	0	0.0	3	100
Subtotal	71	52	73.2	19	26.8	44	62.0
Female sex at birth (≥ 13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	2	1	50.0	1	50.0	1	50.0
25–34	5	5	100	0	0.0	3	60.0
35–44	3	1	33.3	2	66.7	0	0.0
45–54	1	1	100	0	0.0	1	100
55–64	1	1	100	0	0.0	1	100
≥65	0	0	0.0	0	0.0	0	0.0
Transmission category^c							
Injection drug use ^e	6	5	82.1	1	17.9	1	23.2
Heterosexual contact ^f	6	4	68.8	2	31.3	5	73.4
Other ^g	0	0	0.0	0	0.0	0	0.0
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	12	9	75.0	3	25.0	6	50.0
Metropolitan areas (pop. 50,000–499,999)	0	0	0.0	0	0.0	0	0.0
Nonmetropolitan areas (pop. < 50,000)	0	0	0.0	0	0.0	0	0.0
Subtotal	12	9	75.0	3	25.0	6	50.0
Total	83	61	73.5	22	26.5	50	60.2

Table 2c. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥ 13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression	
		≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤6 months	
		No.	%	No.	%	No.	%
White							
Gender							
Man	7,149	5,900	82.5	1,249	17.5	4,970	69.5
Woman	1,630	1,296	79.5	334	20.5	999	61.3
Transgender woman ^a	109	95	87.2	14	12.8	74	67.9
Transgender man ^a	19	18	94.7	1	5.3	18	94.7
Additional gender identity ^b	17	17	100	0	0.0	17	100
Male sex at birth (≥ 13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	816	680	83.3	136	16.7	611	74.9
25–34	2,460	1,983	80.6	477	19.4	1,704	69.3
35–44	1,777	1,442	81.1	335	18.9	1,217	68.5
45–54	1,097	932	85.0	165	15.0	739	67.4
55–64	864	746	86.3	118	13.7	601	69.6
≥65	259	227	87.6	32	12.4	187	72.2
Transmission category^c							
Male-to-male sexual contact ^d	5,628	4,710	83.7	918	16.3	4,040	71.8
Injection drug use ^e	635	474	74.7	161	25.3	343	54.1
Male-to-male sexual contact ^d and injection drug use ^e	613	498	81.2	115	18.8	396	64.6
Heterosexual contact ^f	389	322	82.9	67	17.1	275	70.7
Other ^g	9	6	70.1	3	29.9	5	54.0
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	5,092	4,257	83.6	835	16.4	3,605	70.8
Metropolitan areas (pop. 50,000–499,999)	1,316	1,046	79.5	270	20.5	866	65.8
Nonmetropolitan areas (pop. < 50,000)	796	652	81.9	144	18.1	546	68.6
Subtotal	7,273	6,010	82.6	1,263	17.4	5,059	69.6
Female sex at birth (≥ 13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	150	120	80.0	30	20.0	101	67.3
25–34	447	355	79.4	92	20.6	272	60.9
35–44	491	396	80.7	95	19.3	289	58.9
45–54	306	239	78.1	67	21.9	189	61.8
55–64	199	160	80.4	39	19.6	128	64.3
≥65	58	46	79.3	12	20.7	40	69.0
Transmission category^c							
Injection drug use ^e	584	450	77.0	134	23.0	296	50.6
Heterosexual contact ^f	1,061	861	81.2	200	18.8	719	67.7
Other ^g	6	5	83.9	1	16.1	5	74.2
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	1,083	881	81.3	202	18.7	659	60.8
Metropolitan areas (pop. 50,000–499,999)	343	260	75.8	83	24.2	216	63.0
Nonmetropolitan areas (pop. < 50,000)	209	161	77.0	48	23.0	137	65.6
Subtotal	1,651	1,316	79.7	335	20.3	1,019	61.7
Total	8,924	7,326	82.1	1,598	17.9	6,078	68.1

Table 2c. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥13 years, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression	
		≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤6 months	
		No.	%	No.	%	No.	%
		Multiracial					
Gender							
Man	749	619	82.6	130	17.4	540	72.1
Woman	220	173	78.6	47	21.4	139	63.2
Transgender woman ^a	36	30	83.3	6	16.7	27	75.0
Transgender man ^a	1	1	100	0	0.0	1	100
Additional gender identity ^b	3	3	100	0	0.0	2	66.7
Male sex at birth (≥13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	186	152	81.7	34	18.3	148	79.6
25–34	332	279	84.0	53	16.0	232	69.9
35–44	147	118	80.3	29	19.7	100	68.0
45–54	70	62	88.6	8	11.4	50	71.4
55–64	37	30	81.1	7	18.9	27	73.0
≥65	16	11	68.8	5	31.3	12	75.0
Transmission category^c							
Male-to-male sexual contact ^d	650	546	83.9	104	16.1	476	73.2
Injection drug use ^e	43	33	77.3	10	22.7	29	68.5
Male-to-male sexual contact ^d and injection drug use ^e	50	39	77.7	11	22.3	34	67.4
Heterosexual contact ^f	44	34	76.3	10	23.7	30	66.6
Other ^g	1	1	100	0	0.0	1	100
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	603	499	82.8	104	17.2	440	73.0
Metropolitan areas (pop. 50,000–499,999)	121	96	79.3	25	20.7	82	67.8
Nonmetropolitan areas (pop. < 50,000)	60	54	90.0	6	10.0	44	73.3
Subtotal	788	652	82.7	136	17.3	569	72.2
Female sex at birth (≥13 yr at diagnosis)							
Age at diagnosis (yr)							
13–24	32	27	84.4	5	15.6	22	68.8
25–34	64	46	71.9	18	28.1	40	62.5
35–44	61	50	82.0	11	18.0	39	63.9
45–54	36	28	77.8	8	22.2	21	58.3
55–64	21	19	90.5	2	9.5	16	76.2
≥65	7	4	57.1	3	42.9	2	28.6
Transmission category^c							
Injection drug use ^e	42	30	70.7	12	29.3	20	48.2
Heterosexual contact ^f	178	143	80.4	35	19.6	118	66.7
Other ^g	2	2	100	0	0.0	2	100
Population area of residence^h							
Metropolitan statistical areas (pop. ≥500,000)	162	127	78.4	35	21.6	102	63.0
Metropolitan areas (pop. 50,000–499,999)	34	29	85.3	5	14.7	20	58.8
Nonmetropolitan areas (pop. < 50,000)	21	15	71.4	6	28.6	14	66.7
Subtotal	221	174	78.7	47	21.3	140	63.3
Total	1,009	826	81.9	183	18.1	709	70.3

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); pop., population; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Linkage to HIV medical care was measured by documentation of ≥1 CD4 or VL tests ≤1 month after HIV diagnosis. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are within 6 months of HIV diagnosis during 2022. Data are based on residence at HIV diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^b Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^c Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^d Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^e Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^f Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^g Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^h Population area of residence defined by the U.S. Office of Management and Budget.

ⁱ Hispanic/Latino persons can be of any race.

Table 2d. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among males, based on sex assigned at birth, aged ≥13 years with HIV attributed to male-to-male sexual contact, by race/ethnicity and age at diagnosis—48 states and the District of Columbia

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression VL <200 copies/mL ≤6 months	
		≥1 CD4 or VL tests		No CD4 or VL test		No.	%
		No.	%	No.	%		
American Indian/Alaska Native							
13–24	23	23	100	0	0.0	16	66.2
25–34	48	39	82.8	8	17.2	29	60.1
35–44	28	25	87.9	3	12.1	21	73.8
45–54	5	4	80.8	1	19.2	4	80.8
55–64	6	5	73.8	2	26.2	3	52.5
≥65	2	1	52.6	1	47.4	1	52.6
Subtotal	112	97	86.6	15	13.4	73	65.2
Asian							
13–24	101	90	89.1	11	10.9	90	89.3
25–34	245	220	89.8	25	10.2	188	76.6
35–44	153	137	89.4	16	10.6	121	78.7
45–54	76	70	91.9	6	8.1	57	74.2
55–64	28	25	87.3	4	12.7	18	64.0
≥65	5	3	62.0	2	38.0	3	60.0
Subtotal	608	544	89.5	64	10.5	476	78.2
Black/African American							
13–24	2,778	2,163	77.9	615	22.1	1,791	64.5
25–34	3,679	2,882	78.3	798	21.7	2,400	65.2
35–44	1,315	1,043	79.3	272	20.7	867	65.9
45–54	512	388	75.9	123	24.1	322	63.0
55–64	280	216	77.3	63	22.7	170	60.7
≥65	75	58	77.4	17	22.6	42	55.9
Subtotal	8,638	6,750	78.1	1,888	21.9	5,591	64.7
Hispanic/Latino^a							
13–24	1,783	1,491	83.7	291	16.3	1,322	74.2
25–34	3,811	3,257	85.5	554	14.5	2,917	76.5
35–44	1,942	1,682	86.6	259	13.4	1,482	76.3
45–54	831	725	87.3	106	12.7	594	71.5
55–64	356	307	86.2	49	13.8	253	71.0
≥65	70	56	79.7	14	20.3	45	64.8
Subtotal	8,793	7,519	85.5	1,274	14.5	6,613	75.2
Native Hawaiian/other Pacific Islander							
13–24	13	9	69.2	4	30.8	6	46.2
25–34	25	17	67.6	8	32.4	15	59.5
35–44	14	13	92.8	1	7.2	11	78.4
45–54	6	5	84.5	1	15.5	4	67.2
55–64	3	3	100	0	0.0	3	100
≥65	1	0	0.0	1	100	0	0.0
Subtotal	60	46	76.2	14	23.8	38	62.9
White							
13–24	728	607	83.4	121	16.6	553	76.0
25–34	1,914	1,571	82.1	343	17.9	1,383	72.3
35–44	1,312	1,076	82.0	236	18.0	932	71.1
45–54	813	706	86.8	108	13.2	562	69.2
55–64	670	580	86.6	89	13.4	470	70.3
≥65	192	169	88.2	23	11.8	139	72.7
Subtotal	5,628	4,710	83.7	918	16.3	4,040	71.8
Multiracial							
13–24	169	140	82.3	30	17.7	133	78.7
25–34	291	249	85.7	42	14.3	208	71.3
35–44	106	84	79.6	22	20.4	73	68.3
45–54	52	49	93.9	3	6.1	40	75.8
55–64	20	16	79.8	4	20.2	15	72.4
≥65	11	7	63.8	4	36.2	8	76.2
Subtotal	650	546	83.9	104	16.1	476	73.2
All							
13–24	5,595	4,523	80.8	1,072	19.2	3,911	69.9
25–34	10,012	8,235	82.3	1,777	17.7	7,138	71.3
35–44	4,870	4,061	83.4	809	16.6	3,505	72.0
45–54	2,296	1,948	84.8	348	15.2	1,583	69.0
55–64	1,362	1,151	84.5	211	15.5	931	68.4
≥65	354	294	82.8	61	17.2	238	67.3
Total	24,490	20,212	82.5	4,278	17.5	17,307	70.7

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Linkage to HIV medical care was measured by documentation of ≥1 CD4 or VL tests ≤1 month after HIV diagnosis. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are within 6 months of HIV diagnosis during 2022. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total. Persons whose transmission category is classified as male-to-male sexual contact are presented based on sex assigned at birth and include transgender and additional gender identity persons. Data are based on residence at HIV diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Hispanic/Latino persons can be of any race.

Table 2e. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among transgender and additional gender identity persons aged ≥13 years, by selected characteristics—48 states and the District of Columbia

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression	
		≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤ 6 months	
		No.	%	No.	%	No.	%
Transgender woman^a							
Age at diagnosis (yr)							
13–24	267	213	79.8	54	20.2	178	66.7
25–34	377	307	81.4	70	18.6	257	68.2
35–44	133	117	88.0	16	12.0	93	69.9
45–54	54	46	85.2	8	14.8	34	63.0
≥55	20	17	85.0	3	15.0	15	75.0
Race/ethnicity							
American Indian/Alaska Native	6	5	83.3	1	16.7	4	66.7
Asian	14	14	100	0	0.0	10	71.4
Black/African American	351	279	79.5	72	20.5	226	64.4
Hispanic/Latino ^b	331	275	83.1	56	16.9	233	70.4
Native Hawaiian/other Pacific Islander	4	2	50.0	2	50.0	3	75.0
White	109	95	87.2	14	12.8	74	67.9
Multiracial	36	30	83.3	6	16.7	27	75.0
Exposure category^c							
Sexual contact ^d	757	625	82.6	132	17.4	520	68.7
Injection drug use ^e	3	3	100	0	0.0	2	66.7
Sexual contact ^d and injection drug use ^e	55	47	85.5	8	14.5	30	54.5
Other ^f	36	25	69.4	11	30.6	25	69.4
Subtotal	851	700	82.3	151	17.7	577	67.8
Transgender man^a							
Age at diagnosis (yr)							
13–24	18	17	94.4	1	5.6	17	94.4
25–34	31	27	87.1	4	12.9	27	87.1
35–44	7	6	85.7	1	14.3	6	85.7
45–54	2	2	100	0	0.0	2	100
≥55	1	1	100	0	0.0	1	100
Race/ethnicity							
American Indian/Alaska Native	0	0	0.0	0	0.0	0	0.0
Asian	1	1	100	0	0.0	1	100
Black/African American	23	21	91.3	2	8.7	20	87.0
Hispanic/Latino ^b	15	12	80.0	3	20.0	13	86.7
Native Hawaiian/other Pacific Islander	0	0	0.0	0	0.0	0	0.0
White	19	18	94.7	1	5.3	18	94.7
Multiracial	1	1	100	0	0.0	1	100
Exposure category^c							
Sexual contact ^d	53	48	90.6	5	9.4	48	90.6
Injection drug use ^e	0	0	0.0	0	0.0	0	0.0
Sexual contact ^d and injection drug use ^e	1	1	100	0	0.0	1	100
Other ^f	5	4	80.0	1	20.0	4	80.0
Subtotal	59	53	89.8	6	10.2	53	89.8

Table 2e. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among transgender and additional gender identity persons aged ≥13 years, by selected characteristics—48 states and the District of Columbia (cont)

	Total diagnoses No.	Linkage to care ≤1 month				Viral suppression	
		≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤ 6 months	
		No.	%	No.	%	No.	%
Additional gender identity^g							
Age at diagnosis (yr)							
13–24	21	21	100	0	0.0	17	81.0
25–34	32	31	96.9	1	3.1	30	93.8
35–44	9	9	100	0	0.0	8	88.9
45–54	2	2	100	0	0.0	2	100
≥55	1	1	100	0	0.0	1	100
Race/ethnicity							
American Indian/Alaska Native	1	1	100	0	0.0	1	100
Asian	5	5	100	0	0.0	4	80.0
Black/African American	19	19	100	0	0.0	15	78.9
Hispanic/Latino ^b	20	19	95.0	1	5.0	19	95.0
Native Hawaiian/other Pacific Islander	0	0	0.0	0	0.0	0	0.0
White	17	17	100	0	0.0	17	100
Multiracial	3	3	100	0	0.0	2	66.7
Exposure category^c							
Sexual contact ^d	58	57	98.3	1	1.7	53	91.4
Injection drug use ^e	0	0	0.0	0	0.0	0	0.0
Sexual contact ^d and injection drug use ^e	6	6	100	0	0.0	4	66.7
Other ^f	1	1	100	0	0.0	1	100
Subtotal	65	64	98.5	1	1.5	58	89.2
Total	975	817	83.8	158	16.2	688	70.6

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Linkage to HIV medical care was measured by documentation of ≥1 CD4 or VL tests ≤1 month after HIV diagnosis. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are within 6 months of diagnosis of HIV during 2022. Data are based on residence at HIV diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^b Hispanic/Latino persons can be of any race.

^c Risk factor data for transgender and additional gender identity persons aged ≥13 years are presented using the exposure category classification, which is meant to convey all the known ways the person could have been exposed to HIV. Exposure categories are mutually exclusive and have no presumed hierarchical order of probability, except for rare circumstances where route of transmission has been confirmed through investigation. See Technical Notes for more information on exposure categories.

^d For persons assigned “male” sex at birth, sexual contact with any person. For persons assigned “female” sex at birth, sexual contact with a person assigned “male” sex at birth.

^e Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^f Other risk factors including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified. Data were not statistically adjusted to account for missing exposure category; therefore, case counts for “Other” might be high.

^g Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

Table 3a. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by selected characteristics—48 states and the District of Columbia

	Persons alive at year-end 2022		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
Gender								
Man	774,351	585,576	75.6	417,006	53.9	507,654	65.6	
Woman	229,653	171,991	74.9	122,604	53.4	145,789	63.5	
Transgender woman ^c	13,440	11,160	83.0	8,145	60.6	8,947	66.6	
Transgender man ^c	589	499	84.7	351	59.6	434	73.7	
Additional gender identity ^d	395	347	87.8	240	60.8	296	74.9	
Age at year-end 2021 (yr)								
13–24	27,725	22,075	79.6	15,368	55.4	18,196	65.6	
25–34	159,748	123,814	77.5	82,959	51.9	100,810	63.1	
35–44	195,969	148,377	75.7	101,518	51.8	124,316	63.4	
45–54	231,600	174,284	75.3	123,539	53.3	150,956	65.2	
55–64	271,343	207,664	76.5	153,803	56.7	184,750	68.1	
≥65	132,045	93,361	70.7	71,160	53.9	84,093	63.7	
Race/ethnicity								
American Indian/Alaska Native	3,032	2,310	76.2	1,626	53.6	1,970	65.0	
Asian ^e	16,060	12,019	74.8	8,662	53.9	11,142	69.4	
Black/African American	406,193	298,607	73.5	209,919	51.7	245,790	60.5	
Hispanic/Latino ^f	245,667	179,869	73.2	134,200	54.6	157,878	64.3	
Native Hawaiian/other Pacific Islander	885	654	73.9	429	48.5	565	63.8	
White	290,961	229,062	78.7	159,878	54.9	206,015	70.8	
Multiracial	55,030	47,012	85.4	33,601	61.1	39,722	72.2	
Transmission category^g								
Male-to-male sexual contact ^h	593,383	460,442	77.6	327,214	55.1	403,049	67.9	
Injection drug use ⁱ	101,292	67,021	66.2	48,145	47.5	55,552	54.8	
Male	57,791	35,737	61.8	25,865	44.8	29,626	51.3	
Female	43,501	31,285	71.9	22,280	51.2	25,926	59.6	
Male-to-male sexual contact ^h and injection drug use ⁱ	55,066	43,179	78.4	30,943	56.2	35,717	64.9	
Heterosexual contact ^j	253,800	188,139	74.1	134,528	53.0	160,335	63.2	
Male	74,417	52,443	70.5	37,782	50.8	44,342	59.6	
Female	179,383	135,696	75.6	96,746	53.9	115,993	64.7	
Other ^k	14,889	10,795	72.5	7,517	50.5	8,469	56.9	
Male	7,487	5,248	70.1	3,560	47.6	4,132	55.2	
Female	7,402	5,547	74.9	3,957	53.5	4,337	58.6	
Population area of residence^l								
Metropolitan statistical areas (pop. ≥500,000)	825,380	624,713	75.7	446,786	54.1	539,892	65.4	
Metropolitan areas (pop. 50,000–499,999)	99,458	76,397	76.8	54,197	54.5	65,887	66.2	
Nonmetropolitan areas (pop. <50,000)	58,935	44,041	74.7	31,399	53.3	37,935	64.4	
Total^m	1,018,430	769,575	75.6	548,347	53.8	663,121	65.1	

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); pop., population; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2022 (i.e., most recent known address). Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Performed ≥3 months apart during 2022.

^b A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2022.

^c “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^d Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^e Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^f Hispanic/Latino persons can be of any race.

^g Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^h Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

ⁱ Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^j Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^k Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^l Population area of residence defined by the U.S. Office of Management and Budget.

^m Includes 2 persons of unknown gender and 602 persons of unknown race/ethnicity.

Table 3b. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥ 13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—48 states and the District of Columbia

	Persons alive at year-end 2022		≥ 1 CD4 or VL tests		≥ 2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
Alabama	14,066	10,373	73.7	7,002	49.8	7,616	54.1	
Alaska	727	622	85.6	408	56.1	552	75.9	
Arizona	17,879	12,959	72.5	9,631	53.9	10,624	59.4	
Arkansas	6,055	4,228	69.8	2,923	48.3	3,810	62.9	
California	133,712	100,100	74.9	69,950	52.3	89,165	66.7	
Colorado	13,285	8,799	66.2	5,459	41.1	7,375	55.5	
Connecticut	10,413	8,067	77.5	5,392	51.8	5,607	53.8	
Delaware	3,512	2,904	82.7	1,910	54.4	2,631	74.9	
District of Columbia	13,338	9,076	68.0	6,161	46.2	7,680	57.6	
Florida	116,142	90,403	77.8	71,059	61.2	80,497	69.3	
Georgia	58,476	44,137	75.5	32,911	56.3	36,850	63.0	
Hawaii	2,357	2,034	86.3	1,463	62.1	1,837	77.9	
Illinois	34,920	26,892	77.0	18,031	51.6	21,638	62.0	
Indiana	12,169	9,695	79.7	6,283	51.6	8,484	69.7	
Iowa	3,094	2,722	88.0	1,928	62.3	2,513	81.2	
Kansas	3,480	2,879	82.7	2,161	62.1	2,546	73.2	
Kentucky	8,057	6,700	83.2	4,854	60.2	5,936	73.7	
Louisiana	20,983	16,786	80.0	12,643	60.3	14,725	70.2	
Maine	1,711	1,410	82.4	990	57.9	1,338	78.2	
Maryland	32,811	24,127	73.5	16,294	49.7	19,764	60.2	
Massachusetts	20,871	15,683	75.1	9,877	47.3	14,076	67.4	
Michigan	16,947	13,754	81.2	9,119	53.8	12,196	72.0	
Minnesota	9,192	7,138	77.7	4,185	45.5	6,304	68.6	
Mississippi ^{c,d}	9,488	4,731	49.9	2,680	28.2	3,188	33.6	
Missouri	12,761	9,805	76.8	6,721	52.7	8,303	65.1	
Montana	710	599	84.4	418	58.9	562	79.2	
Nebraska	2,327	1,805	77.6	1,124	48.3	1,611	69.2	
Nevada	11,236	8,340	74.2	5,905	52.6	7,170	63.8	
New Hampshire	1,358	1,054	77.6	689	50.7	964	71.0	
New Mexico	3,897	2,925	75.1	1,975	50.7	2,668	68.5	
New York	122,512	88,731	72.4	69,154	56.4	79,733	65.1	
North Carolina	33,673	25,581	76.0	16,920	50.2	21,924	65.1	
North Dakota	508	393	77.4	245	48.2	223	43.9	
Ohio	23,648	18,110	76.6	11,394	48.2	15,970	67.5	
Oklahoma	6,889	5,216	75.7	3,682	53.4	4,383	63.6	
Oregon	7,313	6,323	86.5	3,539	48.4	5,735	78.4	
Pennsylvania	36,094	25,975	72.0	18,285	50.7	22,762	63.1	
Rhode Island	2,678	2,108	78.7	1,240	46.3	1,961	73.2	

Table 3b. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—48 states and the District of Columbia (cont)

	Persons alive at year-end 2022		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
South Carolina ^d	17,754	14,273	80.4	10,685	60.2	11,398	64.2	
South Dakota	726	645	88.8	402	55.4	458	63.1	
Tennessee	18,501	14,819	80.1	10,692	57.8	12,648	68.4	
Texas	100,285	76,550	76.3	55,437	55.3	61,697	61.5	
Utah ^d	3,468	2,621	75.6	1,665	48.0	2,401	69.2	
Vermont	750	597	79.6	392	52.3	555	74.0	
Virginia	24,051	17,357	72.2	11,956	49.7	15,462	64.3	
Washington	14,426	12,234	84.8	7,686	53.3	11,297	78.3	
West Virginia ^c	2,162	1,473	68.1	862	39.9	905	41.9	
Wisconsin	6,653	5,516	82.9	3,769	56.7	5,126	77.0	
Wyoming	365	306	83.8	196	53.7	253	69.3	
Region of residence^e								
Northeast (excluding NJ)	196,387	143,625	73.1	106,019	54.0	126,996	64.7	
Midwest	126,425	99,354	78.6	65,362	51.7	85,372	67.5	
South	486,243	368,734	75.8	268,671	55.3	311,114	64.0	
West (excluding ID)	209,375	157,862	75.4	108,295	51.7	139,639	66.7	

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2022 (i.e., most recent known address). Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Performed ≥3 months apart during 2022.

^b A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2022.

^c Data should be interpreted with caution due to lapse in laboratory data completeness that occurred during the year 2022.

^d Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2022.

^e Region of residence defined by the U.S. Census Bureau. Data should be interpreted with caution as areas with incomplete reporting to CDC are not included.

Table 3c. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by race/ethnicity and selected characteristics—48 states and the District of Columbia

	Persons alive at year-end 2022		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
	American Indian/Alaska Native							
Gender								
Man	2,239	1,693	75.6	1,201	53.6	1,472	65.7	
Woman	730	568	77.8	389	53.3	458	62.7	
Transgender woman ^c	59	45	76.3	35	59.3	36	61.0	
Transgender man ^c	3	3	100	0	0.0	3	100	
Additional gender identity ^d	1	1	100	1	100	1	100	
Male sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	90	73	81.1	58	64.4	63	70.0	
25–34	526	410	77.9	285	54.2	340	64.6	
35–44	536	423	78.9	289	53.9	382	71.3	
45–54	508	386	76.0	280	55.1	335	65.9	
55–64	471	342	72.6	248	52.7	297	63.1	
≥65	168	105	62.5	77	45.8	92	54.8	
Transmission category^e								
Male-to-male sexual contact ^f	1,654	1,278	77.3	903	54.6	1,122	67.9	
Injection drug use ^g	204	139	68.2	99	48.7	118	57.7	
Male-to-male sexual contact ^f and injection drug use ^g	278	201	72.5	147	53.0	168	60.4	
Heterosexual contact ^h	146	106	72.9	77	52.6	88	60.3	
Other ⁱ	18	15	80.3	11	57.4	14	74.3	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	1,255	898	71.6	654	52.1	786	62.6	
Metropolitan areas (pop. 50,000–499,999)	386	321	83.2	231	59.8	281	72.8	
Nonmetropolitan areas (pop. <50,000)	603	475	78.8	324	53.7	403	66.8	
Subtotal	2,299	1,739	75.6	1,237	53.8	1,509	65.6	
Female sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	10	6	60.0	5	50.0	3	30.0	
25–34	97	70	72.2	44	45.4	45	46.4	
35–44	177	136	76.8	91	51.4	106	59.9	
45–54	215	166	77.2	112	52.1	140	65.1	
55–64	161	129	80.1	90	55.9	107	66.5	
≥65	73	64	87.7	47	64.4	60	82.2	
Transmission category^e								
Injection drug use ^g	246	186	75.5	127	51.6	140	56.8	
Heterosexual contact ^h	469	377	80.4	258	55.0	315	67.2	
Other ⁱ	17	8	45.3	4	20.3	6	33.1	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	353	249	70.5	166	47.0	213	60.3	
Metropolitan areas (pop. 50,000–499,999)	135	120	88.9	94	69.6	98	72.6	
Nonmetropolitan areas (pop. <50,000)	221	185	83.7	120	54.3	140	63.3	
Subtotal	733	571	77.9	389	53.1	461	62.9	
Total^k	3,032	2,310	76.2	1,626	53.6	1,970	65.0	

Table 3c. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Persons alive at year-end 2022		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
	Asian^l							
Gender								
Man	13,102	9,819	74.9	7,117	54.3	9,143	69.8	
Woman	2,714	1,990	73.3	1,406	51.8	1,804	66.5	
Transgender woman ^c	229	198	86.5	129	56.3	183	79.9	
Transgender man ^c	11	9	81.8	7	63.6	9	81.8	
Additional gender identity ^d	4	3	75.0	3	75.0	3	75.0	
Male sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	413	337	81.6	248	60.0	311	75.3	
25–34	2,702	2,057	76.1	1,473	54.5	1,907	70.6	
35–44	3,118	2,355	75.5	1,644	52.7	2,194	70.4	
45–54	3,700	2,848	77.0	2,039	55.1	2,664	72.0	
55–64	2,269	1,684	74.2	1,271	56.0	1,574	69.4	
≥65	1,132	738	65.2	573	50.6	678	59.9	
Transmission category^e								
Male-to-male sexual contact ^f	11,338	8,601	75.9	6,212	54.8	8,034	70.9	
Injection drug use ^g	427	274	64.3	209	49.0	244	57.2	
Male-to-male sexual contact ^f and injection drug use ^g	415	306	73.6	207	50.0	278	67.1	
Heterosexual contact ^h	1,025	742	72.4	554	54.0	683	66.6	
Other ⁱ	129	96	74.9	66	51.0	88	68.2	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	12,081	9,134	75.6	6,617	54.8	8,521	70.5	
Metropolitan areas (pop. 50,000–499,999)	715	521	72.9	375	52.4	487	68.1	
Nonmetropolitan areas (pop. <50,000)	200	136	68.0	107	53.5	124	62.0	
Subtotal	13,334	10,019	75.1	7,248	54.4	9,328	70.0	
Female sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	106	92	86.8	66	62.3	84	79.2	
25–34	271	204	75.3	143	52.8	185	68.3	
35–44	766	579	75.6	406	53.0	527	68.8	
45–54	781	554	70.9	381	48.8	495	63.4	
55–64	476	357	75.0	265	55.7	327	68.7	
≥65	326	214	65.6	153	46.9	196	60.1	
Transmission category^e								
Injection drug use ^g	176	116	65.9	86	49.1	108	61.6	
Heterosexual contact ^h	2,399	1,770	73.8	1,250	52.1	1,602	66.8	
Other ⁱ	151	114	75.8	78	51.7	104	68.8	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	2,298	1,697	73.8	1,204	52.4	1,540	67.0	
Metropolitan areas (pop. 50,000–499,999)	249	179	71.9	124	49.8	163	65.5	
Nonmetropolitan areas (pop. <50,000)	81	60	74.1	43	53.1	57	70.4	
Subtotal	2,726	2,000	73.4	1,414	51.9	1,814	66.5	
Total^k	16,060	12,019	74.8	8,662	53.9	11,142	69.4	

Table 3c. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Persons alive at year-end 2022		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
	Black/African American							
Gender								
Man	266,795	194,780	73.0	136,058	51.0	159,182	59.7	
Woman	132,864	98,445	74.1	70,004	52.7	82,434	62.0	
Transgender woman ^c	6,148	5,059	82.3	3,631	59.1	3,912	63.6	
Transgender man ^c	231	192	83.1	139	60.2	161	69.7	
Additional gender identity ^d	154	130	84.4	87	56.5	101	65.6	
Male sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	12,107	9,512	78.6	6,508	53.8	7,636	63.1	
25–34	61,200	46,471	75.9	30,542	49.9	36,112	59.0	
35–44	53,253	40,137	75.4	27,246	51.2	32,181	60.4	
45–54	50,944	37,389	73.4	26,429	51.9	31,016	60.9	
55–64	63,589	46,162	72.6	33,966	53.4	38,995	61.3	
≥65	31,988	20,287	63.4	15,078	47.1	17,245	53.9	
Transmission category^e								
Male-to-male sexual contact ^f	183,865	138,966	75.6	96,003	52.2	113,610	61.8	
Injection drug use ^g	25,766	15,753	61.1	11,450	44.4	12,789	49.6	
Male-to-male sexual contact ^f and injection drug use ^g	14,328	10,839	75.6	7,825	54.6	8,559	59.7	
Heterosexual contact ^h	45,611	32,023	70.2	22,857	50.1	26,488	58.1	
Other ⁱ	3,511	2,377	67.7	1,634	46.5	1,738	49.5	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	224,678	165,175	73.5	114,941	51.2	135,180	60.2	
Metropolitan areas (pop. 50,000–499,999)	24,771	18,142	73.2	12,969	52.4	14,813	59.8	
Nonmetropolitan areas (pop. <50,000)	14,723	10,585	71.9	7,951	54.0	8,640	58.7	
Subtotal	273,081	199,958	73.2	139,769	51.2	163,185	59.8	
Female sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	3,145	2,395	76.2	1,744	55.5	1,863	59.2	
25–34	14,215	10,449	73.5	6,994	49.2	7,886	55.5	
35–44	26,634	19,308	72.5	13,099	49.2	15,502	58.2	
45–54	36,455	27,143	74.5	18,988	52.1	22,911	62.8	
55–64	35,360	26,957	76.2	19,985	56.5	23,497	66.5	
≥65	17,303	12,397	71.6	9,340	54.0	10,946	63.3	
Transmission category^e								
Injection drug use ^g	19,825	14,044	70.8	10,123	51.1	11,685	58.9	
Heterosexual contact ^h	109,192	81,575	74.7	57,832	53.0	68,657	62.9	
Other ⁱ	4,095	3,031	74.0	2,194	53.6	2,263	55.3	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	109,681	81,377	74.2	57,826	52.7	68,263	62.2	
Metropolitan areas (pop. 50,000–499,999)	12,492	9,555	76.5	6,909	55.3	7,997	64.0	
Nonmetropolitan areas (pop. <50,000)	6,390	4,581	71.7	3,317	51.9	3,832	60.0	
Subtotal	133,112	98,649	74.1	70,150	52.7	82,605	62.1	
Total^k	406,193	298,607	73.5	209,919	51.7	245,790	60.5	

Table 3c. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Persons alive at year-end 2022		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
	Hispanic/Latino^m							
Gender								
Man	198,021	143,341	72.4	106,569	53.8	126,452	63.9	
Woman	42,849	32,571	76.0	24,638	57.5	28,170	65.7	
Transgender woman ^c	4,551	3,749	82.4	2,840	62.4	3,075	67.6	
Transgender man ^c	140	116	82.9	83	59.3	100	71.4	
Additional gender identity ^d	106	92	86.8	70	66.0	81	76.4	
Male sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	5,943	4,882	82.1	3,409	57.4	4,164	70.1	
25–34	38,472	30,736	79.9	21,398	55.6	26,214	68.1	
35–44	47,296	34,913	73.8	25,239	53.4	30,285	64.0	
45–54	48,873	34,176	69.9	25,767	52.7	30,297	62.0	
55–64	44,208	31,197	70.6	24,532	55.5	28,241	63.9	
≥65	17,877	11,270	63.0	9,126	51.0	10,400	58.2	
Transmission category^e								
Male-to-male sexual contact ^f	156,041	117,067	75.0	86,782	55.6	104,101	66.7	
Injection drug use ^g	16,608	9,172	55.2	6,968	42.0	7,800	47.0	
Male-to-male sexual contact ^f and injection drug use ^g	13,162	9,869	75.0	7,370	56.0	8,147	61.9	
Heterosexual contact ^h	15,271	9,973	65.3	7,572	49.6	8,699	57.0	
Other ⁱ	1,587	1,093	68.8	780	49.1	855	53.9	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	176,193	129,733	73.6	97,118	55.1	114,578	65.0	
Metropolitan areas (pop. 50,000–499,999)	13,706	9,494	69.3	6,822	49.8	8,453	61.7	
Nonmetropolitan areas (pop. <50,000)	7,189	4,172	58.0	2,987	41.5	3,625	50.4	
Subtotal	202,669	147,174	72.6	109,471	54.0	129,601	63.9	
Female sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	983	795	80.9	565	57.5	634	64.5	
25–34	4,546	3,470	76.3	2,438	53.6	2,815	61.9	
35–44	8,339	6,263	75.1	4,479	53.7	5,189	62.2	
45–54	11,452	8,675	75.8	6,492	56.7	7,492	65.4	
55–64	11,609	9,060	78.0	7,204	62.1	8,098	69.8	
≥65	6,069	4,432	73.0	3,551	58.5	4,049	66.7	
Transmission category^e								
Injection drug use ^g	8,562	6,271	73.2	4,745	55.4	5,263	61.5	
Heterosexual contact ^h	32,862	25,201	76.7	19,093	58.1	22,042	67.1	
Other ⁱ	1,574	1,223	77.7	891	56.6	971	61.7	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	36,360	27,728	76.3	21,167	58.2	24,135	66.4	
Metropolitan areas (pop. 50,000–499,999)	3,149	2,417	76.8	1,817	57.7	2,137	67.9	
Nonmetropolitan areas (pop. <50,000)	1,393	1,012	72.6	701	50.3	870	62.5	
Subtotal	42,998	32,695	76.0	24,729	57.5	28,277	65.8	
Total^k	245,667	179,869	73.2	134,200	54.6	157,878	64.3	

Table 3c. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Persons alive at year-end 2022		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.		No.	%	No.	%	No.	%
			Native Hawaiian/other Pacific Islander					
Gender								
Man	709		533	75.2	345	48.7	464	65.4
Woman	139		93	66.9	64	46.0	83	59.7
Transgender woman ^c	37		28	75.7	20	54.1	18	48.6
Transgender man ^c	0		0	0.0	0	0.0	0	0.0
Additional gender identity ^d	0		0	0.0	0	0.0	0	0.0
Male sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	31		26	83.9	18	58.1	24	77.4
25–34	167		122	73.1	72	43.1	97	58.1
35–44	202		143	70.8	91	45.0	123	60.9
45–54	171		131	76.6	88	51.5	114	66.7
55–64	120		98	81.7	66	55.0	87	72.5
≥65	55		41	74.5	30	54.5	37	67.3
Transmission category^e								
Male-to-male sexual contact ^f	637		474	74.5	306	48.1	412	64.7
Injection drug use ^g	24		17	70.4	13	54.6	14	57.9
Male-to-male sexual contact ^f and injection drug use ^g	48		38	79.7	26	53.3	28	58.2
Heterosexual contact ^h	33		27	83.5	18	53.7	24	73.2
Other ⁱ	5		5	95.7	2	51.1	5	95.7
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	600		452	75.3	295	49.2	389	64.8
Metropolitan areas (pop. 50,000–499,999)	83		63	75.9	41	49.4	53	63.9
Nonmetropolitan areas (pop. <50,000)	35		26	74.3	18	51.4	24	68.6
Subtotal	746		561	75.2	365	48.9	482	64.6
Female sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	5		4	80.0	2	40.0	3	60.0
25–34	17		11	64.7	8	47.1	11	64.7
35–44	33		22	66.7	19	57.6	19	57.6
45–54	31		18	58.1	11	35.5	16	51.6
55–64	34		23	67.6	13	38.2	20	58.8
≥65	19		15	78.9	11	57.9	14	73.7
Transmission category^e								
Injection drug use ^g	23		14	58.5	9	40.2	13	53.4
Heterosexual contact ^h	115		79	68.9	55	47.5	70	61.2
Other ⁱ	1		0	0.0	0	0.0	0	0.0
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	101		65	64.4	45	44.6	58	57.4
Metropolitan areas (pop. 50,000–499,999)	23		19	82.6	10	43.5	17	73.9
Nonmetropolitan areas (pop. <50,000)	10		6	60.0	6	60.0	6	60.0
Subtotal	139		93	66.9	64	46.0	83	59.7
Total^k	885		654	73.9	429	48.5	565	63.8

Table 3c. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Persons alive at year-end 2022		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
	White							
Gender								
Man	251,660	199,963	79.5	140,429	55.8	180,778	71.8	
Woman	37,708	27,735	73.6	18,505	49.1	24,048	63.8	
Transgender woman ^c	1,363	1,155	84.7	804	59.0	997	73.1	
Transgender man ^c	144	130	90.3	89	61.8	118	81.9	
Additional gender identity ^d	85	78	91.8	50	58.8	73	85.9	
Male sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	2,754	2,214	80.4	1,520	55.2	1,981	71.9	
25–34	24,302	19,379	79.7	12,651	52.1	16,804	69.1	
35–44	36,989	29,352	79.4	19,106	51.7	25,721	69.5	
45–54	55,710	44,555	80.0	30,411	54.6	39,887	71.6	
55–64	87,638	70,886	80.9	51,126	58.3	65,183	74.4	
≥65	45,706	34,802	76.1	26,463	57.9	32,264	70.6	
Transmission category^e								
Male-to-male sexual contact ^f	207,587	166,618	80.3	117,560	56.6	152,191	73.3	
Injection drug use ^g	12,289	8,330	67.8	5,618	45.7	6,987	56.9	
Male-to-male sexual contact ^f and injection drug use ^g	22,300	17,991	80.7	12,463	55.9	15,350	68.8	
Heterosexual contact ^h	9,182	6,976	76.0	4,837	52.7	6,191	67.4	
Other ⁱ	1,741	1,272	73.0	799	45.9	1,121	64.4	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	192,108	152,031	79.1	107,383	55.9	138,175	71.9	
Metropolitan areas (pop. 50,000–499,999)	31,608	25,814	81.7	18,017	57.0	23,126	73.2	
Nonmetropolitan areas (pop. <50,000)	20,018	16,371	81.8	11,400	56.9	14,654	73.2	
Subtotal	253,099	201,188	79.5	141,277	55.8	181,840	71.8	
Female sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	755	580	76.8	409	54.2	494	65.4	
25–34	3,981	2,844	71.4	1,789	44.9	2,295	57.6	
35–44	7,227	5,269	72.9	3,324	46.0	4,337	60.0	
45–54	9,816	7,230	73.7	4,729	48.2	6,231	63.5	
55–64	10,937	8,198	75.0	5,666	51.8	7,376	67.4	
≥65	5,146	3,753	72.9	2,684	52.2	3,442	66.9	
Transmission category^e								
Injection drug use ^g	11,796	8,256	70.0	5,431	46.0	6,762	57.3	
Heterosexual contact ^h	25,018	18,883	75.5	12,694	50.7	16,757	67.0	
Other ⁱ	1,048	735	70.2	476	45.4	656	62.6	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	24,700	17,956	72.7	12,024	48.7	15,626	63.3	
Metropolitan areas (pop. 50,000–499,999)	6,554	5,026	76.7	3,398	51.8	4,335	66.1	
Nonmetropolitan areas (pop. <50,000)	4,630	3,526	76.2	2,347	50.7	3,120	67.4	
Subtotal	37,862	27,874	73.6	18,601	49.1	24,175	63.9	
Total^k	290,961	229,062	78.7	159,878	54.9	206,015	70.8	

Table 3c. Receipt of HIV medical care and viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by race/ethnicity and selected characteristics—48 states and the District of Columbia (cont)

	Persons alive at year-end 2022		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
	Multiracial							
Gender								
Man	41,383	35,411	85.6	25,258	61.0	30,129	72.8	
Woman	12,489	10,583	84.7	7,595	60.8	8,787	70.4	
Transgender woman ^c	1,053	926	87.9	686	65.1	726	68.9	
Transgender man ^c	60	49	81.7	33	55.0	43	71.7	
Additional gender identity ^d	45	43	95.6	29	64.4	37	82.2	
Male sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	1,034	870	84.1	601	58.1	718	69.4	
25–34	7,795	6,415	82.3	4,296	55.1	5,198	66.7	
35–44	8,824	7,372	83.5	5,015	56.8	6,070	68.8	
45–54	9,439	8,128	86.1	5,801	61.5	6,970	73.8	
55–64	10,931	9,674	88.5	7,211	66.0	8,434	77.2	
≥65	4,451	3,914	87.9	3,044	68.4	3,496	78.5	
Transmission category^e								
Male-to-male sexual contact ^f	31,961	27,411	85.8	19,426	60.8	23,554	73.7	
Injection drug use ^g	2,415	2,048	84.8	1,505	62.3	1,670	69.2	
Male-to-male sexual contact ^f and injection drug use ^g	4,495	3,933	87.5	2,903	64.6	3,185	70.9	
Heterosexual contact ^h	3,121	2,590	83.0	1,865	59.7	2,165	69.4	
Other ⁱ	482	391	81.1	269	55.7	312	64.6	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	34,724	29,856	86.0	21,342	61.5	25,453	73.3	
Metropolitan areas (pop. 50,000–499,999)	4,066	3,449	84.8	2,457	60.4	2,883	70.9	
Nonmetropolitan areas (pop. <50,000)	2,508	2,149	85.7	1,547	61.7	1,819	72.5	
Subtotal	42,474	36,373	85.6	25,968	61.1	30,886	72.7	
Female sex at birth (≥13 yr at diagnosis)								
Age at diagnosis (yr)								
13–24	345	289	83.8	215	62.3	218	63.2	
25–34	1,446	1,176	81.3	826	57.1	901	62.3	
35–44	2,556	2,104	82.3	1,469	57.5	1,679	65.7	
45–54	3,402	2,877	84.6	2,006	59.0	2,381	70.0	
55–64	3,279	2,878	87.8	2,144	65.4	2,496	76.1	
≥65	1,528	1,315	86.1	973	63.7	1,161	76.0	
Transmission category^e								
Injection drug use ^g	2,824	2,397	84.9	1,757	62.2	1,954	69.2	
Heterosexual contact ^h	9,229	7,806	84.6	5,562	60.3	6,545	70.9	
Other ⁱ	503	435	86.5	313	62.3	336	66.9	
Population area of residence^j								
Metropolitan statistical areas (pop. ≥500,000)	9,794	8,320	84.9	5,972	61.0	6,936	70.8	
Metropolitan areas (pop. 50,000–499,999)	1,491	1,277	85.6	933	62.6	1,044	70.0	
Nonmetropolitan areas (pop. <50,000)	899	757	84.2	531	59.1	621	69.1	
Subtotal	12,556	10,639	84.7	7,633	60.8	8,836	70.4	
Total^k	55,030	47,012	85.4	33,601	61.1	39,722	72.2	

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); pop., population; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2022 (i.e., most recent known address). Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Performed ≥3 months apart during 2022.

^b A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2022.

^c “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^d Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^e Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^f Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^g Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^h Heterosexual contact with a person known to have, or with a risk factor for, HIV.

ⁱ Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^j Population area of residence defined by the U.S. Office of Management and Budget.

^k Includes persons of unknown gender.

^l Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^m Hispanic/Latino persons can be of any race.

Table 3d. Receipt of HIV medical care and viral suppression during 2022 among males, based on sex assigned at birth, aged ≥13 years with HIV attributed to male-to-male sexual contact, by race/ethnicity and age group—48 states and the District of Columbia

	Males alive at year-end 2022		≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%	
American Indian/Alaska Native								
13–24	78	62	79.5	50	64.1	53	68.0	
25–34	418	332	79.3	227	54.4	279	66.8	
35–44	415	332	80.1	230	55.5	303	73.1	
45–54	351	270	76.8	191	54.4	242	68.8	
55–64	291	214	73.7	156	53.6	185	63.6	
≥65	100	68	67.4	49	49.1	60	59.4	
Subtotal	1,654	1,278	77.3	903	54.6	1,122	67.9	
Asian^c								
13–24	334	272	81.4	200	59.7	249	74.5	
25–34	2,551	1,952	76.5	1,405	55.1	1,818	71.3	
35–44	2,744	2,073	75.5	1,448	52.8	1,941	70.7	
45–54	3,047	2,358	77.4	1,672	54.9	2,211	72.6	
55–64	1,821	1,375	75.5	1,040	57.1	1,288	70.7	
≥65	842	572	68.0	447	53.1	528	62.8	
Subtotal	11,338	8,601	75.9	6,212	54.8	8,034	70.9	
Black/African American								
13–24	10,241	8,177	79.8	5,583	54.5	6,605	64.5	
25–34	53,945	41,467	76.9	27,289	50.6	32,436	60.1	
35–44	42,566	32,548	76.5	22,028	51.7	26,257	61.7	
45–54	32,396	24,282	75.0	17,192	53.1	20,418	63.0	
55–64	32,830	24,427	74.4	17,905	54.5	20,929	63.7	
≥65	11,887	8,065	67.9	6,006	50.5	6,965	58.6	
Subtotal	183,865	138,966	75.6	96,003	52.2	113,610	61.8	
Hispanic/Latino^d								
13–24	5,219	4,339	83.1	3,017	57.8	3,743	71.7	
25–34	34,126	27,453	80.4	19,147	56.1	23,652	69.3	
35–44	39,377	29,664	75.3	21,495	54.6	26,057	66.2	
45–54	37,130	26,720	72.0	20,211	54.4	24,040	64.7	
55–64	30,068	22,036	73.3	17,332	57.6	20,230	67.3	
≥65	10,120	6,856	67.7	5,579	55.1	6,379	63.0	
Subtotal	156,041	117,067	75.0	86,782	55.6	104,101	66.7	
Native Hawaiian/other Pacific Islander								
13–24	25	20	79.7	13	51.2	19	75.6	
25–34	147	107	72.9	64	43.1	90	61.4	
35–44	181	130	71.9	84	46.3	112	62.1	
45–54	147	110	74.9	72	48.9	96	65.4	
55–64	94	76	80.9	53	56.1	68	71.7	
≥65	44	31	72.0	22	51.0	27	62.8	
Subtotal	637	474	74.5	306	48.1	412	64.7	
White								
13–24	2,231	1,826	81.8	1,249	56.0	1,651	74.0	
25–34	19,804	15,872	80.1	10,427	52.7	14,015	70.8	
35–44	29,651	23,590	79.6	15,420	52.0	21,046	71.0	
45–54	45,196	36,310	80.3	24,811	54.9	32,905	72.8	
55–64	72,456	59,338	81.9	42,985	59.3	54,918	75.8	
≥65	38,250	29,682	77.6	22,667	59.3	27,657	72.3	
Subtotal	207,587	166,618	80.3	117,560	56.6	152,191	73.3	

Table 3d. Receipt of HIV medical care and viral suppression during 2022 among males, based on sex assigned at birth, aged ≥13 years with HIV attributed to male-to-male sexual contact, by race/ethnicity and age group—48 states and the District of Columbia (cont)

	Males alive at year-end 2022 Total No.	≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
		No.	%	No.	%	No.	%
Multiracial							
13–24	831	707	85.1	489	58.8	586	70.5
25–34	6,712	5,548	82.7	3,718	55.4	4,535	67.6
35–44	7,244	6,047	83.5	4,082	56.4	5,029	69.4
45–54	6,989	6,053	86.6	4,308	61.6	5,271	75.4
55–64	7,472	6,651	89.0	4,930	66.0	5,952	79.7
≥65	2,713	2,405	88.6	1,899	70.0	2,182	80.4
Subtotal	31,961	27,411	85.8	19,426	60.8	23,554	73.7
All							
13–24	18,959	15,403	81.2	10,601	55.9	12,905	68.1
25–34	117,703	92,731	78.8	62,277	52.9	76,825	65.3
35–44	122,187	94,384	77.2	64,788	53.0	80,745	66.1
45–54	125,302	96,108	76.7	68,460	54.6	85,187	68.0
55–64	145,177	114,129	78.6	84,411	58.1	103,582	71.3
≥65	64,055	47,687	74.4	36,676	57.3	43,805	68.4
Total^e	593,383	460,442	77.6	327,214	55.1	403,049	67.9

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Data are for those with HIV diagnosed by year-end 2021, and age groups are based on age at year-end 2021. Data are based on address of residence as of December 31, 2022 (i.e., most recent known address). Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total. Persons whose transmission category is classified as male-to-male sexual contact are presented based on sex assigned at birth and include transgender and additional gender identity persons. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Performed ≥3 months apart during 2022.

^b A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2022.

^c Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^d Hispanic/Latino persons can be of any race.

^e Includes 300 persons of unknown race/ethnicity.

Table 3e. Receipt of HIV medical care and viral suppression during 2022 among transgender and additional gender identity persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by selected characteristics—48 states and the District of Columbia

	Persons alive at year-end 2022	≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%
Transgender woman^c							
Age at year-end 2021 (yr)							
13–24	937	767	81.9	519	55.4	589	62.9
25–34	4,770	3,915	82.1	2,744	57.5	3,012	63.1
35–44	3,675	3,047	82.9	2,235	60.8	2,429	66.1
45–54	2,342	1,959	83.6	1,486	63.5	1,637	69.9
≥55	1,716	1,472	85.8	1,161	67.7	1,280	74.6
Race/ethnicity							
American Indian/Alaska Native	59	45	76.3	35	59.3	36	61.0
Asian ^d	229	198	86.5	129	56.3	183	79.9
Black/African American	6,148	5,059	82.3	3,631	59.1	3,912	63.6
Hispanic/Latino ^e	4,551	3,749	82.4	2,840	62.4	3,075	67.6
Native Hawaiian/other Pacific Islander	37	28	75.7	20	54.1	18	48.6
White	1,363	1,155	84.7	804	59.0	997	73.1
Multiracial	1,053	926	87.9	686	65.1	726	68.9
Exposure category^f							
Sexual contact ^g	11,479	9,520	82.9	6,927	60.3	7,690	67.0
Injection drug use ^h	32	21	65.6	17	53.1	13	40.6
Sexual contact ^g and injection drug use ^h	1,685	1,447	85.9	1,090	64.7	1,112	66.0
Other ⁱ	244	172	70.5	111	45.5	132	54.1
Subtotal	13,440	11,160	83.0	8,145	60.6	8,947	66.6
Transgender man^c							
Age at year-end 2021 (yr)							
13–24	49	42	85.7	35	71.4	36	73.5
25–34	203	179	88.2	132	65.0	155	76.4
35–44	150	122	81.3	78	52.0	112	74.7
45–54	94	77	81.9	55	58.5	60	63.8
≥55	93	79	84.9	51	54.8	71	76.3
Race/ethnicity							
American Indian/Alaska Native	3	3	100	0	0.0	3	100
Asian ^d	11	9	81.8	7	63.6	9	81.8
Black/African American	231	192	83.1	139	60.2	161	69.7
Hispanic/Latino ^e	140	116	82.9	83	59.3	100	71.4
Native Hawaiian/other Pacific Islander	0	0	0.0	0	0.0	0	0.0
White	144	130	90.3	89	61.8	118	81.9
Multiracial	60	49	81.7	33	55.0	43	71.7
Exposure category^f							
Sexual contact ^g	450	377	83.8	276	61.3	332	73.8
Injection drug use ^h	11	9	81.8	6	54.5	8	72.7
Sexual contact ^g and injection drug use ^h	67	59	88.1	35	52.2	48	71.6
Other ⁱ	61	54	88.5	34	55.7	46	75.4
Subtotal	589	499	84.7	351	59.6	434	73.7

Table 3e. Receipt of HIV medical care and viral suppression during 2022 among transgender and additional gender identity persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by selected characteristics—48 states and the District of Columbia (cont)

	Persons alive at year-end 2022	≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
	Total No.	No.	%	No.	%	No.	%
Additional gender identity^j							
Age at year-end 2021 (yr)							
13–24	61	59	96.7	45	73.8	49	80.3
25–34	152	131	86.2	83	54.6	114	75.0
35–44	84	72	85.7	47	56.0	59	70.2
45–54	58	50	86.2	39	67.2	41	70.7
≥55	40	35	87.5	26	65.0	33	82.5
Race/ethnicity							
American Indian/Alaska Native	1	1	100	1	100	1	100
Asian ^d	4	3	75.0	3	75.0	3	75.0
Black/African American	154	130	84.4	87	56.5	101	65.6
Hispanic/Latino ^e	106	92	86.8	70	66.0	81	76.4
Native Hawaiian/other Pacific Islander	0	0	0.0	0	0.0	0	0.0
White	85	78	91.8	50	58.8	73	85.9
Multiracial	45	43	95.6	29	64.4	37	82.2
Exposure category^f							
Sexual contact ^g	341	299	87.7	205	60.1	258	75.7
Injection drug use ^h	1	1	100	1	100	1	100
Sexual contact ^g and injection drug use ^h	39	35	89.7	25	64.1	28	71.8
Other ⁱ	14	12	85.7	9	64.3	9	64.3
Subtotal	395	347	87.8	240	60.8	296	74.9
Total	14,424	12,006	83.2	8,736	60.6	9,677	67.1

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2022 (i.e., most recent known address). Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Performed ≥3 months apart during 2022.

^b A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2022.

^c “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanic/Latino persons can be of any race.

^f Risk factor data for transgender and additional gender identity persons aged ≥13 years are presented using the exposure category classification, which is meant to convey all the known ways the person could have been exposed to HIV. Exposure categories are mutually exclusive and have no presumed hierarchical order of probability, except for rare circumstances where route of transmission has been confirmed through investigation. See Technical Notes for more information on exposure categories.

^g For persons assigned “male” sex at birth, sexual contact with any person. For persons assigned “female” sex at birth, sexual contact with a person assigned “male” sex at birth.

^h Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

ⁱ Other risk factors including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified. Data were not statistically adjusted to account for missing exposure category; therefore, case counts for “Other” might be high.

^j Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

Table 4a. HIV viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by selected characteristics—48 states and the District of Columbia

	Persons alive at year-end 2022		Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		VL <200 copies/mL			
							Among persons alive at year-end 2022		Among persons with ≥1 CD4 or VL tests	
	No.	% ^a	No.	%	No.	%	No.	%	%	%
Gender										
Man	774,351	76.0	585,576	75.6	555,859	71.8	507,654	65.6	86.7	91.3
Woman	229,653	22.5	171,991	74.9	163,062	71.0	145,789	63.5	84.8	89.4
Transgender woman ^b	13,440	1.3	11,160	83.0	10,716	79.7	8,947	66.6	80.2	83.5
Transgender man ^b	589	0.1	499	84.7	476	80.8	434	73.7	87.0	91.2
Additional gender identity ^c	395	0.0	347	87.8	341	86.3	296	74.9	85.3	86.8
Age at year-end (yr)										
13–24	27,725	2.7	22,075	79.6	21,191	76.4	18,196	65.6	82.4	85.9
25–34	159,748	15.7	123,814	77.5	117,965	73.8	100,810	63.1	81.4	85.5
35–44	195,969	19.2	148,377	75.7	141,072	72.0	124,316	63.4	83.8	88.1
45–54	231,600	22.7	174,284	75.3	165,509	71.5	150,956	65.2	86.6	91.2
55–64	271,343	26.6	207,664	76.5	196,999	72.6	184,750	68.1	89.0	93.8
≥65	132,045	13.0	93,361	70.7	87,719	66.4	84,093	63.7	90.1	95.9
Race/ethnicity										
American Indian/Alaska Native	3,032	0.3	2,310	76.2	2,196	72.4	1,970	65.0	85.3	89.7
Asian ^d	16,060	1.6	12,019	74.8	11,525	71.8	11,142	69.4	92.7	96.7
Black/African American	406,193	39.9	298,607	73.5	281,440	69.3	245,790	60.5	82.3	87.3
Hispanic/Latino ^e	245,667	24.1	179,869	73.2	171,940	70.0	157,878	64.3	87.8	91.8
Native Hawaiian/other Pacific Islander	885	0.1	654	73.9	622	70.3	565	63.8	86.4	90.8
White	290,961	28.6	229,062	78.7	218,028	74.9	206,015	70.8	89.9	94.5
Multiracial	55,030	5.4	47,012	85.4	44,665	81.2	39,722	72.2	84.5	88.9
Transmission category^f										
Male-to-male sexual contact ^g	593,383	58.3	460,442	77.6	438,132	73.8	403,049	67.9	87.5	92.0
Injection drug use ^h	101,292	9.9	67,021	66.2	63,006	62.2	55,552	54.8	82.9	88.2
Male	57,791	5.7	35,737	61.8	33,387	57.8	29,626	51.3	82.9	88.7
Female	43,501	4.3	31,285	71.9	29,618	68.1	25,926	59.6	82.9	87.5
Male-to-male sexual contact ^g and injection drug use ^h	55,066	5.4	43,179	78.4	40,912	74.3	35,717	64.9	82.7	87.3
Heterosexual contact ⁱ	253,800	24.9	188,139	74.1	178,037	70.1	160,335	63.2	85.2	90.1
Male	74,417	7.3	52,443	70.5	49,432	66.4	44,342	59.6	84.6	89.7
Female	179,383	17.6	135,696	75.6	128,605	71.7	115,993	64.7	85.5	90.2
Other ^j	14,889	1.5	10,795	72.5	10,368	69.6	8,469	56.9	78.5	81.7
Male	7,487	0.7	5,248	70.1	5,017	67.0	4,132	55.2	78.7	82.4
Female	7,402	0.7	5,547	74.9	5,351	72.3	4,337	58.6	78.2	81.0

Table 4a. HIV viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by selected characteristics—48 states and the District of Columbia (cont)

	Persons alive at year-end 2022		Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		VL <200 copies/mL			
							Among persons alive at year-end 2022		Among persons with ≥1 CD4 or VL tests	
	No.	% ^a	No.	%	No.	%	No.	%	%	%
Population area of residence^k										
Metropolitan statistical areas (pop. ≥500,000)	825,380	81.0	624,713	75.7	594,285	72.0	539,892	65.4	86.4	90.8
Metropolitan areas (pop. 50,000–499,999)	99,458	9.8	76,397	76.8	73,091	73.5	65,887	66.2	86.2	90.1
Nonmetropolitan areas (pop. <50,000)	58,935	5.8	44,041	74.7	41,781	70.9	37,935	64.4	86.1	90.8
Total^l	1,018,430	100	769,575	75.6	730,455	71.7	663,121	65.1	86.2	90.8

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); pop., population; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2022 (i.e., most recent known address). A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2022. Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Represents percentage of the total number for the column.

^b “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^c Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanic/Latino persons can be of any race.

^f Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^g Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^h Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

ⁱ Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^j Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^k Population area of residence defined by U.S. Office of Management and Budget.

^l Includes 2 persons of unknown gender and 602 persons of unknown race/ethnicity.

Table 4b. HIV viral suppression during 2022 among persons aged ≥ 13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—48 states and the District of Columbia

	Persons alive at year-end 2022	Persons with ≥ 1 CD4 or VL tests		Persons with ≥ 1 VL tests		VL of <200 copies/mL				
		No.	No.	%	No.	%	Among persons alive at year-end 2022		Among persons with ≥ 1 CD4 or VL tests	
							No.	%	No.	%
Alabama	14,066	10,373	73.7	9,411	66.9	7,616	54.1	73.4	80.9	
Alaska	727	622	85.6	599	82.4	552	75.9	88.7	92.2	
Arizona	17,879	12,959	72.5	11,613	65.0	10,624	59.4	82.0	91.5	
Arkansas	6,055	4,228	69.8	4,137	68.3	3,810	62.9	90.1	92.1	
California	133,712	100,100	74.9	95,785	71.6	89,165	66.7	89.1	93.1	
Colorado	13,285	8,799	66.2	7,913	59.6	7,375	55.5	83.8	93.2	
Connecticut	10,413	8,067	77.5	6,132	58.9	5,607	53.8	69.5	91.4	
Delaware	3,512	2,904	82.7	2,859	81.4	2,631	74.9	90.6	92.0	
District of Columbia	13,338	9,076	68.0	8,620	64.6	7,680	57.6	84.6	89.1	
Florida	116,142	90,403	77.8	88,064	75.8	80,497	69.3	89.0	91.4	
Georgia	58,476	44,137	75.5	42,032	71.9	36,850	63.0	83.5	87.7	
Hawaii	2,357	2,034	86.3	1,982	84.1	1,837	77.9	90.3	92.7	
Illinois	34,920	26,892	77.0	24,006	68.7	21,638	62.0	80.5	90.1	
Indiana	12,169	9,695	79.7	9,318	76.6	8,484	69.7	87.5	91.0	
Iowa	3,094	2,722	88.0	2,683	86.7	2,513	81.2	92.3	93.7	
Kansas	3,480	2,879	82.7	2,780	79.9	2,546	73.2	88.4	91.6	
Kentucky	8,057	6,700	83.2	6,475	80.4	5,936	73.7	88.6	91.7	
Louisiana	20,983	16,786	80.0	16,540	78.8	14,725	70.2	87.7	89.0	
Maine	1,711	1,410	82.4	1,390	81.2	1,338	78.2	94.9	96.3	
Maryland	32,811	24,127	73.5	21,916	66.8	19,764	60.2	81.9	90.2	
Massachusetts	20,871	15,683	75.1	14,924	71.5	14,076	67.4	89.8	94.3	
Michigan	16,947	13,754	81.2	13,422	79.2	12,196	72.0	88.7	90.9	
Minnesota	9,192	7,138	77.7	6,761	73.6	6,304	68.6	88.3	93.2	
Mississippi ^{a,b}	9,488	4,731	49.9	3,600	37.9	3,188	33.6	67.4	88.6	
Missouri	12,761	9,805	76.8	9,178	71.9	8,303	65.1	84.7	90.5	
Montana	710	599	84.4	585	82.4	562	79.2	93.8	96.1	
Nebraska	2,327	1,805	77.6	1,730	74.3	1,611	69.2	89.3	93.1	
Nevada	11,236	8,340	74.2	7,845	69.8	7,170	63.8	86.0	91.4	
New Hampshire	1,358	1,054	77.6	1,032	76.0	964	71.0	91.5	93.4	
New Mexico	3,897	2,925	75.1	2,872	73.7	2,668	68.5	91.2	92.9	
New York	122,512	88,731	72.4	87,841	71.7	79,733	65.1	89.9	90.8	
North Carolina	33,673	25,581	76.0	24,529	72.8	21,924	65.1	85.7	89.4	
North Dakota	508	393	77.4	251	49.4	223	43.9	56.7	88.8	
Ohio	23,648	18,110	76.6	17,610	74.5	15,970	67.5	88.2	90.7	
Oklahoma	6,889	5,216	75.7	4,853	70.4	4,383	63.6	84.0	90.3	

Table 4b. HIV viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—48 states and the District of Columbia (cont)

	Persons alive at year-end 2022		Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		VL of <200 copies/mL			
	No.		No.	%	No.	%	Among persons alive at year-end 2022		Among persons with ≥1 CD4 or VL tests	
							No.	%	No.	%
Oregon	7,313		6,323	86.5	6,072	83.0	5,735	78.4	90.7	94.4
Pennsylvania	36,094		25,975	72.0	24,881	68.9	22,762	63.1	87.6	91.5
Rhode Island	2,678		2,108	78.7	2,056	76.8	1,961	73.2	93.0	95.4
South Carolina ^b	17,754		14,273	80.4	12,627	71.1	11,398	64.2	79.9	90.3
South Dakota	726		645	88.8	509	70.1	458	63.1	71.0	90.0
Tennessee	18,501		14,819	80.1	14,425	78.0	12,648	68.4	85.3	87.7
Texas	100,285		76,550	76.3	69,678	69.5	61,697	61.5	80.6	88.5
Utah ^b	3,468		2,621	75.6	2,568	74.0	2,401	69.2	91.6	93.5
Vermont	750		597	79.6	589	78.5	555	74.0	93.0	94.2
Virginia	24,051		17,357	72.2	16,951	70.5	15,462	64.3	89.1	91.2
Washington	14,426		12,234	84.8	12,007	83.2	11,297	78.3	92.3	94.1
West Virginia ^a	2,162		1,473	68.1	1,057	48.9	905	41.9	61.4	85.6
Wisconsin	6,653		5,516	82.9	5,479	82.4	5,126	77.0	92.9	93.6
Wyoming	365		306	83.8	268	73.4	253	69.3	82.7	94.4
Region of residence^c										
Northeast (excluding NJ)	196,387		143,625	73.1	138,845	70.7	126,996	64.7	88.4	91.5
Midwest	126,425		99,354	78.6	93,727	74.1	85,372	67.5	85.9	91.1
Southeast	486,243		368,734	75.8	347,774	71.5	311,114	64.0	84.4	89.5
West (excluding ID)	209,375		157,862	75.4	150,109	71.7	139,639	66.7	88.5	93.0

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Data are based on address of residence as of December 31, 2022 (i.e., most recent known address). A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2022. Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Data should be interpreted with caution due to lapse in laboratory data completeness that occurred during the year 2022.

^b Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2022.

^c Region of residence defined by U.S. Census Bureau. Data should be interpreted with caution as areas with incomplete reporting to CDC are not included.

Table 5. Prevalence-based HIV care continuum for persons aged ≥13 years living with HIV (diagnosed or undiagnosed) at year-end 2022, by selected characteristics—United States

	Persons with HIV infection alive at year-end 2022 ^a	Persons with diagnosed HIV infection alive at year-end 2022 ^b		Receipt of care ^c		Retention in care ^c		Viral suppression ^c		
	Total No.	No.	%	No.	%	No.	%	No.	%	
Assigned sex at birth										
Male	969,200	837,568	86	634,877	66	452,287	47	549,445	57	
Female	268,800	242,183	90	181,395	68	129,326	48	153,786	57	
Age at year-end 2022 (yr)										
13–24	42,200	23,762	56	18,915	45	13,164	31	15,588	37	
25–34	221,600	158,620	72	122,931	56	82,324	37	100,089	45	
35–44	247,900	208,870	84	158,115	64	108,195	44	132,424	53	
45–54	255,900	235,527	92	177,352	69	125,536	49	153,564	60	
55–64	306,400	292,799	96	223,991	73	166,017	54	199,396	65	
≥65	163,900	160,173	98	113,242	69	86,333	53	102,030	62	
Race/ethnicity										
American Indian/Alaska Native	4,200	3,240	77	2,469	59	1,737	41	2,106	50	
Asian ^d	18,400	17,065	93	12,765	69	9,198	50	11,843	64	
Black/African American	489,200	428,320	88	314,815	64	221,441	45	259,134	53	
Hispanic/Latino ^e	316,900	266,317	84	194,944	62	145,409	46	171,242	54	
Native Hawaiian/other Pacific Islander	1,200	969	80	716	60	470	39	618	52	
White	342,200	305,311	89	240,280	70	167,616	49	216,160	63	
Multiracial	65,300	57,900	89	49,447	76	35,377	54	41,804	64	
Transmission category^f										
Male-to-male sexual contact ^g	739,200	633,765	86	491,802	67	349,205	47	430,327	58	
Injection drug use ^h	121,200	110,948	92	73,447	61	52,700	44	60,799	50	
Male	69,900	63,409	91	39,187	56	28,407	41	32,529	47	
Female	51,300	47,539	93	34,181	67	24,340	47	28,333	55	
Male-to-male sexual contact ^g and injection drug use ^h	63,000	57,732	92	45,262	72	32,446	52	37,468	60	
Heterosexual contact ⁱ	310,900	273,627	88	202,757	65	145,022	47	172,932	56	
Male	95,100	80,635	85	56,848	60	40,963	43	48,059	51	
Female	215,800	192,992	89	145,902	68	104,022	48	124,866	58	
Total^j	1,238,000	1,079,751	87	816,292	66	580,906	47	702,918	57	

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; RSE, relative standard error [footnotes only].

^a Estimates derived by using HIV surveillance and CD4 data for persons aged ≥13 years at diagnosis (i.e., persons living with diagnosed or undiagnosed HIV). Estimates for year 2022 should be interpreted with caution due to adjustments made to the CD4-based depletion model to account for the impact of COVID-19 on HIV testing and diagnosis in the United States. Estimates rounded to the nearest 100 for estimates of >1,000 and to the nearest 10 for estimates of ≤1,000 to reflect model uncertainty. Estimates with a relative standard error 30%–50% are preceded by an asterisk (*) and should be interpreted with caution because they do not meet the standard of reliability. Estimates with an RSE of >50% are not shown and replaced by an ellipsis (...). Data previously published in the HIV Surveillance Supplemental Report 2023;29(No. 1). <http://www.cdc.gov/hiv-data/nhss/estimated-hiv-incidence-and-prevalence.html>.

^b Reported to National HIV Surveillance System. Data previously published in the HIV Surveillance Supplemental Report 2023;29(No. 1). <http://www.cdc.gov/hiv-data/nhss/estimated-hiv-incidence-and-prevalence.html>.

^c Estimates are the result of extrapolating data from the 49 jurisdictions with complete CD4 and viral load reporting by applying the percentage in the 49 jurisdictions (found in Tables 3a and 4a) to the total number of persons living with diagnosed HIV in the United States. Estimates were calculated by sex assigned at birth and are rounded to the nearest 100 for estimates of >1,000 and to the nearest 10 for estimates of ≤1,000 to reflect model uncertainty.

^d Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^e Hispanic/Latino persons can be of any race.

^f Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^g Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^h Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

ⁱ Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^j Includes persons with other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

Table 6a. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥13 years, by year of diagnosis and selected characteristics, 2018–2022—United States

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b		
	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%
Gender															
Man	29,415	6,099	20.7	28,731	5,865	20.4	24,177	5,190	21.5	28,246	6,028	21.3	29,693	6,269	21.1
Woman	6,952	1,514	21.8	6,820	1,402	20.6	5,354	1,231	23.0	6,445	1,377	21.4	6,915	1,470	21.3
Transgender woman ^c	691	86	12.4	720	95	13.2	719	89	12.4	873	101	11.6	868	107	12.3
Transgender man ^c	48	2	4.2	45	5	11.1	41	2	4.9	60	3	5.0	59	4	6.8
Additional gender identity ^d	26	1	3.8	34	1	2.9	26	4	15.4	47	6	12.8	66	13	19.7
Age at diagnosis (yr)															
13–24	7,882	710	9.0	7,680	629	8.2	6,167	563	9.1	7,010	686	9.8	7,049	728	10.3
25–34	13,297	2,106	15.8	13,036	2,113	16.2	11,307	1,953	17.3	13,068	2,205	16.9	14,031	2,405	17.1
35–44	7,089	1,828	25.8	7,007	1,766	25.2	5,846	1,486	25.4	7,513	1,916	25.5	8,283	2,041	24.6
45–54	5,152	1,735	33.7	4,840	1,543	31.9	3,872	1,359	35.1	4,382	1,432	32.7	4,516	1,449	32.1
55–64	2,845	999	35.1	2,925	985	33.7	2,439	885	36.3	2,871	980	34.1	2,850	946	33.2
≥65	867	324	37.4	862	332	38.5	686	270	39.4	827	296	35.8	872	294	33.7
Race/ethnicity															
American Indian/Alaska Native	166	28	16.9	180	24	13.3	177	39	22.0	211	41	19.4	215	43	20.0
Asian	837	221	26.4	712	171	24.0	597	167	28.0	729	186	25.5	795	223	28.1
Black/African American	15,387	3,038	19.7	15,130	2,914	19.3	12,533	2,496	19.9	14,304	2,854	20.0	14,546	2,901	19.9
Hispanic/Latino ^e	9,934	2,151	21.7	9,924	2,088	21.0	8,164	1,848	22.6	10,135	2,223	21.9	11,804	2,509	21.3
Native Hawaiian/other Pacific Islander	53	11	20.8	56	10	17.9	59	10	16.9	73	18	24.7	83	20	24.1
White	9,215	1,985	21.5	8,887	1,871	21.1	7,643	1,715	22.4	8,980	1,936	21.6	9,102	1,950	21.4
Multiracial	1,540	268	17.4	1,461	290	19.8	1,144	241	21.1	1,239	257	20.7	1,056	217	20.5
Transmission category^f															
Male-to-male sexual contact ^g	24,346	4,689	19.3	23,827	4,468	18.8	20,462	4,083	20.0	23,785	4,740	19.9	25,193	4,919	19.5
Injection drug use ^h	2,506	553	22.1	2,561	545	21.3	2,078	461	22.2	2,537	557	21.9	2,621	588	22.4
Male	1,373	326	23.7	1,371	339	24.7	1,191	281	23.6	1,440	336	23.3	1,465	358	24.4
Female	1,134	227	20.1	1,190	206	17.3	886	179	20.2	1,096	221	20.2	1,156	229	19.8
Male-to-male sexual contact ^g and injection drug use ^h	1,567	223	14.2	1,617	265	16.4	1,240	196	15.8	1,437	218	15.2	1,323	242	18.3
Heterosexual contact ⁱ	8,643	2,219	25.7	8,272	2,069	25.0	6,483	1,760	27.2	7,851	1,986	25.3	8,380	2,093	25.0
Male	2,813	942	33.5	2,628	876	33.3	2,004	713	35.6	2,471	834	33.8	2,605	859	33.0
Female	5,830	1,277	21.9	5,644	1,193	21.1	4,479	1,047	23.4	5,380	1,152	21.4	5,775	1,234	21.4
Other ^j	70	18	26.2	73	20	27.8	55	16	29.1	62	15	23.9	85	21	25.1
Male	32	7	21.9	38	13	33.6	24	8	35.6	26	7	26.0	36	10	27.2
Female	38	11	29.8	35	8	21.8	31	7	24.2	35	8	22.3	49	12	23.6

Table 6a. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥13 years, by year of diagnosis and selected characteristics, 2018–2022—United States (cont)

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b		
	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%
Region of residence^k															
Northeast	5,543	1,254	22.6	5,318	1,161	21.8	4,263	948	22.2	4,892	1,093	22.3	5,069	1,071	21.1
Midwest	4,936	1,103	22.3	4,777	1,000	20.9	4,116	880	21.4	4,828	987	20.4	4,891	1,004	20.5
South	19,029	3,862	20.3	18,823	3,779	20.1	15,469	3,329	21.5	18,603	3,933	21.1	19,793	4,184	21.1
West	7,624	1,483	19.5	7,432	1,428	19.2	6,469	1,359	21.0	7,348	1,502	20.4	7,848	1,604	20.4
Population area of residence^l															
Metropolitan statistical areas (pop. ≥500,000)	30,050	6,018	20.0	29,490	5,807	19.7	24,367	5,054	20.7	28,508	5,817	20.4	29,900	6,151	20.6
Metropolitan areas (pop. 50,000–499,999)	4,414	1,010	22.9	4,297	931	21.7	3,725	880	23.6	4,531	1,020	22.5	4,829	1,038	21.5
Nonmetropolitan areas (pop. < 50,000)	2,299	598	26.0	2,266	564	24.9	1,942	522	26.9	2,302	617	26.8	2,517	621	24.7
Total	37,132	7,702	20.7	36,350	7,368	20.3	30,317	6,516	21.5	35,671	7,515	21.1	37,601	7,863	20.9

Abbreviations: pop., population; CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage [footnotes only].

Note. Data are based on residence at HIV diagnosis.

^a The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022.

^b Based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after HIV diagnosis.

^c “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^d Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^e Hispanic/Latino persons can be of any race.

^f Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^g Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^h Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

ⁱ Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^j Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^k Region of residence defined by the U.S. Census Bureau.

^l Population area of residence defined by the U.S. Office of Management and Budget.

Table 6b. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥13 years, by year of diagnosis and selected characteristics, 2018–2022—United States and 6 territories and freely associated states

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	Total No.	Stage 3 (AIDS) at diagnosis ^b		Total No.	Stage 3 (AIDS) at diagnosis ^b		Total No.	Stage 3 (AIDS) at diagnosis ^b		Total No.	Stage 3 (AIDS) at diagnosis ^b		Total No.	Stage 3 (AIDS) at diagnosis ^b	
		No.	%		No.	%		No.	%		No.	%		No.	%
Gender															
Man	29,791	6,181	20.7	29,066	5,942	20.4	24,440	5,249	21.5	28,585	6,111	21.4	30,006	6,316	21.0
Woman	7,035	1,532	21.8	6,901	1,429	20.7	5,401	1,244	23.0	6,530	1,396	21.4	6,981	1,492	21.4
Transgender woman ^c	694	86	12.4	722	95	13.2	722	89	12.3	874	101	11.6	869	107	12.3
Transgender man ^c	48	2	4.2	45	5	11.1	41	2	4.9	60	3	5.0	59	4	6.8
Additional gender identity ^d	26	1	3.8	34	1	2.9	26	4	15.4	47	6	12.8	66	13	19.7
Age at diagnosis (yr)															
13–24	7,965	715	9.0	7,744	635	8.2	6,224	566	9.1	7,071	691	9.8	7,099	730	10.3
25–34	13,433	2,124	15.8	13,152	2,136	16.2	11,391	1,963	17.2	13,194	2,230	16.9	14,160	2,424	17.1
35–44	7,167	1,848	25.8	7,085	1,784	25.2	5,911	1,506	25.5	7,606	1,936	25.5	8,367	2,056	24.6
45–54	5,247	1,763	33.6	4,906	1,571	32.0	3,923	1,378	35.1	4,456	1,462	32.8	4,576	1,463	32.0
55–64	2,892	1,019	35.2	2,989	1,001	33.5	2,483	901	36.3	2,915	991	34.0	2,886	957	33.2
≥65	890	333	37.4	892	345	38.7	698	274	39.3	854	307	35.9	893	302	33.8
Race/ethnicity															
American Indian/Alaska Native	166	28	16.9	180	24	13.3	177	39	22.0	211	41	19.4	215	43	20.0
Asian	841	221	26.3	719	174	24.2	597	167	28.0	730	186	25.5	795	223	28.1
Black/African American	15,399	3,041	19.7	15,138	2,917	19.3	12,539	2,497	19.9	14,310	2,856	20.0	14,553	2,904	20.0
Hispanic/Latino ^e	10,372	2,245	21.6	10,317	2,184	21.2	8,469	1,919	22.7	10,546	2,323	22.0	12,167	2,574	21.2
Native Hawaiian/other Pacific Islander	55	13	23.6	60	11	18.3	60	10	16.7	73	18	24.7	83	20	24.1
White	9,220	1,986	21.5	8,893	1,872	21.1	7,644	1,715	22.4	8,987	1,936	21.5	9,112	1,951	21.4
Multiracial	1,541	268	17.4	1,461	290	19.8	1,144	241	21.1	1,239	257	20.7	1,056	217	20.5
Transmission category^f															
Male-to-male sexual contact ^g	24,622	4,734	19.2	24,064	4,510	18.7	20,662	4,113	19.9	24,041	4,795	19.9	25,422	4,945	19.5
Injection drug use ^h	2,535	561	22.1	2,588	557	21.5	2,099	468	22.3	2,555	564	22.1	2,650	594	22.4
Male	1,399	334	23.9	1,393	348	25.0	1,210	289	23.9	1,458	343	23.5	1,490	364	24.4
Female	1,136	227	20.0	1,195	209	17.5	889	179	20.2	1,098	221	20.2	1,161	230	19.9
Male-to-male sexual contact ^g and injection drug use ^h	1,578	229	14.5	1,629	269	16.5	1,244	197	15.9	1,439	218	15.2	1,327	244	18.4
Heterosexual contact ⁱ	8,789	2,259	25.7	8,414	2,115	25.1	6,570	1,793	27.3	7,999	2,025	25.3	8,495	2,127	25.0
Male	2,879	964	33.5	2,694	898	33.3	2,047	733	35.8	2,535	854	33.7	2,660	873	32.8
Female	5,910	1,295	21.9	5,720	1,217	21.3	4,523	1,060	23.4	5,464	1,171	21.4	5,835	1,254	21.5
Other ^j	70	18	26.2	73	20	27.8	55	16	29.1	62	15	23.8	87	22	25.6
Male	32	7	21.9	38	13	33.6	24	8	35.6	26	7	26.0	36	10	27.1
Female	38	11	29.8	35	8	21.8	31	7	24.2	36	8	22.2	51	12	24.5

Table 6b. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥13 years, by year of diagnosis and selected characteristics, 2018–2022—United States and 6 territories and freely associated states (cont)

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b		
	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%
Region of residence^k															
Northeast	5,543	1,254	22.6	5,318	1,161	21.8	4,263	948	22.2	4,892	1,093	22.3	5,069	1,071	21.1
Midwest	4,936	1,103	22.3	4,777	1,000	20.9	4,116	880	21.4	4,828	987	20.4	4,891	1,004	20.5
South	19,029	3,862	20.3	18,823	3,779	20.1	15,469	3,329	21.5	18,603	3,933	21.1	19,793	4,184	21.1
West	7,624	1,483	19.5	7,432	1,428	19.2	6,469	1,359	21.0	7,348	1,502	20.4	7,848	1,604	20.4
U.S. territories and freely associated states	462	100	21.6	418	104	24.9	313	72	23.0	425	102	24.0	380	69	18.2
Total	37,594	7,802	20.8	36,768	7,472	20.3	30,630	6,588	21.5	36,096	7,617	21.1	37,981	7,932	20.9

Abbreviation: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage [footnotes only].

Note. Data are based on residence at HIV diagnosis.

^a The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022.

^b Based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after HIV diagnosis.

^c “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^d Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^e Hispanic/Latino persons can be of any race.

^f Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^g Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^h Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

ⁱ Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^j Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^k Region of residence defined by the U.S. Census Bureau. U.S. territories and freely associated states include American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands and the Republic of Palau.

Table 6c. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥13 years, by year of diagnosis and area of residence, 2018–2022—United States and 6 territories and freely associated states

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	Total No.	Stage 3 (AIDS) at diagnosis ^b		Total No.	Stage 3 (AIDS) at diagnosis ^b		Total No.	Stage 3 (AIDS) at diagnosis ^b		Total No.	Stage 3 (AIDS) at diagnosis ^b		Total No.	Stage 3 (AIDS) at diagnosis ^b	
		No.	%		No.	%		No.	%		No.	%		No.	%
Alabama	606	128	21.1	632	135	21.4	581	126	21.7	661	124	18.8	701	142	20.3
Alaska	23	4	17.4	27	2	7.4	29	3	10.3	30	10	33.3	38	8	21.1
Arizona	753	159	21.1	733	133	18.1	648	143	22.1	775	148	19.1	860	186	21.6
Arkansas	279	60	21.5	288	71	24.7	245	60	24.5	334	82	24.6	305	48	15.7
California	4,808	881	18.3	4,571	843	18.4	4,097	864	21.1	4,539	934	20.6	4,856	946	19.5
Colorado	398	94	23.6	459	85	18.5	326	69	21.2	403	71	17.6	433	94	21.7
Connecticut	258	64	24.8	206	58	28.2	173	42	24.3	232	48	20.7	220	37	16.8
Delaware	92	22	23.9	93	20	21.5	91	26	28.6	82	25	30.5	128	39	30.5
District of Columbia	277	43	15.5	255	37	14.5	196	40	20.4	198	37	18.7	211	35	16.6
Florida	4,190	900	21.5	4,010	862	21.5	3,166	675	21.3	3,892	804	20.7	4,290	938	21.9
Georgia	2,498	491	19.7	2,418	485	20.1	1,968	432	22.0	2,285	537	23.5	2,511	551	21.9
Hawaii	72	15	20.8	64	13	20.3	53	18	34.0	71	15	21.1	78	17	21.8
Idaho	36	15	41.7	34	14	41.2	34	13	38.2	54	14	25.9	41	11	26.8
Illinois	1,375	276	20.1	1,295	249	19.2	1,086	225	20.7	1,195	209	17.5	1,306	261	20.0
Indiana	515	126	24.5	481	100	20.8	430	104	24.2	527	107	20.3	612	141	23.0
Iowa	115	26	22.6	100	22	22.0	100	25	25.0	124	31	25.0	123	29	23.6
Kansas	154	40	26.0	132	26	19.7	142	35	24.6	153	41	26.8	133	37	27.8
Kentucky	377	76	20.2	325	67	20.6	301	63	20.9	388	70	18.0	405	101	24.9
Louisiana	949	182	19.2	877	181	20.6	710	159	22.4	896	205	22.9	856	161	18.8
Maine	31	10	32.3	30	11	36.7	15	7	46.7	31	14	45.2	41	11	26.8
Maryland	989	200	20.2	913	205	22.5	708	155	21.9	735	180	24.5	748	183	24.5
Massachusetts	642	150	23.4	532	112	21.1	428	100	23.4	444	102	23.0	438	93	21.2
Michigan	717	166	23.2	674	148	22.0	519	97	18.7	641	124	19.3	629	128	20.3
Minnesota	286	68	23.8	274	64	23.4	231	47	20.3	296	68	23.0	261	45	17.2
Mississippi	474	129	27.2	467	118	25.3	405	90	22.2	427	88	20.6	448	77	17.2
Missouri	450	95	21.1	490	88	18.0	367	68	18.5	547	99	18.1	512	78	15.2
Montana	24	5	20.8	25	5	20.0	14	5	35.7	22	5	22.7	11	3	27.3
Nebraska	77	25	32.5	80	21	26.3	72	18	25.0	105	23	21.9	91	19	20.9
Nevada	498	95	19.1	517	121	23.4	394	71	18.0	502	120	23.9	528	110	20.8
New Hampshire	38	10	26.3	31	5	16.1	32	8	25.0	32	9	28.1	28	4	14.3
New Jersey	1,003	234	23.3	1,076	234	21.7	769	170	22.1	1,032	216	20.9	1,090	248	22.8
New Mexico	153	37	24.2	176	29	16.5	132	25	18.9	150	20	13.3	94	22	23.4
New York	2,461	539	21.9	2,369	496	20.9	1,992	425	21.3	2,117	477	22.5	2,226	462	20.8
North Carolina	1,183	204	17.2	1,356	210	15.5	1,080	226	20.9	1,389	265	19.1	1,353	259	19.1

Table 6c. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥13 years, by year of diagnosis and area of residence, 2018–2022—United States and 6 territories and freely associated states (cont)

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b			Stage 3 (AIDS) at diagnosis ^b		
	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%	Total No.	No.	%
North Dakota	36	5	13.9	39	9	23.1	36	16	44.4	38	10	26.3	38	8	21.1
Ohio	974	223	22.9	969	213	22.0	883	193	21.9	919	211	23.0	855	191	22.3
Oklahoma	277	61	22.0	345	54	15.7	341	71	20.8	385	68	17.7	394	80	20.3
Oregon	227	52	22.9	198	49	24.7	180	28	15.6	201	43	21.4	250	54	21.6
Pennsylvania	1,017	217	21.3	991	229	23.1	788	185	23.5	924	205	22.2	954	203	21.3
Rhode Island	75	22	29.3	72	14	19.4	53	8	15.1	68	17	25.0	68	12	17.6
South Carolina	726	174	24.0	721	164	22.7	655	160	24.4	648	167	25.8	717	193	26.9
South Dakota	29	7	24.1	34	9	26.5	37	4	10.8	31	9	29.0	40	6	15.0
Tennessee	740	145	19.6	767	133	17.3	647	110	17.0	830	140	16.9	860	163	19.0
Texas	4,421	857	19.4	4,370	844	19.3	3,616	748	20.7	4,510	928	20.6	4,896	998	20.4
Utah	123	17	13.8	137	27	19.7	132	30	22.7	134	26	19.4	155	32	20.6
Vermont	18	8	44.4	11	2	18.2	13	3	23.1	12	5	41.7	4	1	25.0
Virginia	859	170	19.8	833	169	20.3	620	165	26.6	793	181	22.8	834	193	23.1
Washington	497	108	21.7	478	105	22.0	416	88	21.2	460	94	20.4	491	119	24.2
West Virginia	92	20	21.7	153	24	15.7	139	23	16.5	150	32	21.3	136	23	16.9
Wisconsin	208	46	22.1	209	51	24.4	213	48	22.5	252	55	21.8	291	61	21.0
Wyoming	12	1	8.3	13	2	15.4	14	2	14.3	7	2	28.6	13	2	15.4
Subtotal	37,132	7,702	20.7	36,350	7,368	20.3	30,317	6,516	21.5	35,671	7,515	21.1	37,601	7,863	20.9
U.S. territories and freely associated states															
American Samoa	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
Guam	7	3	42.9	11	3	27.3	1	0	0.0	0	0	0.0	0	0	0.0
Northern Mariana Islands	1	0	0.0	2	1	50.0	0	0	0.0	0	0	0.0	0	0	0.0
Puerto Rico	438	94	21.5	391	94	24.0	305	71	23.3	415	100	24.1	365	65	17.8
Republic of Palau	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
U.S. Virgin Islands	16	3	18.8	14	6	42.9	7	1	14.3	10	2	20.0	15	4	26.7
Subtotal	462	100	21.6	418	104	24.9	313	72	23.0	425	102	24.0	380	69	18.2
Total	37,594	7,802	20.8	36,768	7,472	20.3	30,630	6,588	21.5	36,096	7,617	21.1	37,981	7,932	20.9

Abbreviation: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage [footnotes only].

Note. Data are based on residence at HIV diagnosis. U.S. territories and freely associated states include American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands and the Republic of Palau.

^a The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022.

^b Based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after HIV diagnosis.

Table 6d. Stage 3 (AIDS) at time of HIV diagnosis among persons aged ≥13 years, by race/ethnicity and area of residence, 2022—United States

Area of residence	Black/African American			Hispanic/Latino ^a			White			Other ^b		
	Total No.	Stage 3 (AIDS) at diagnosis ^c		Total No.	Stage 3 (AIDS) at diagnosis ^c		Total No.	Stage 3 (AIDS) at diagnosis ^c		Total No.	Stage 3 (AIDS) at diagnosis ^c	
		No.	%		No.	%		No.	%		No.	%
Alabama	448	90	20.1	37	6	16.2	174	36	20.7	42	10	23.8
Alaska	6	1	16.7	7	0	0.0	13	4	30.8	12	3	25.0
Arizona	149	21	14.1	383	78	20.4	253	68	26.9	75	19	25.3
Arkansas	125	17	13.6	37	8	21.6	119	19	16.0	24	4	16.7
California	709	103	14.5	2,768	554	20.0	999	186	18.6	380	103	27.1
Colorado	51	7	13.7	178	35	19.7	186	44	23.7	18	8	44.4
Connecticut	78	15	19.2	88	10	11.4	48	12	25.0	6	0	0.0
Delaware	69	22	31.9	15	3	20.0	37	12	32.4	7	2	28.6
District of Columbia	160	29	18.1	32	3	9.4	14	1	7.1	5	2	40.0
Florida	1,760	408	23.2	1,523	288	18.9	922	212	23.0	85	30	35.3
Georgia	1,697	365	21.5	343	84	24.5	393	87	22.1	78	15	19.2
Hawaii	4	2	50.0	11	1	9.1	27	5	18.5	36	9	25.0
Idaho	3	2	66.7	12	2	16.7	25	7	28.0	1	0	0.0
Illinois	559	110	19.7	408	82	20.1	267	48	18.0	72	21	29.2
Indiana	275	61	22.2	91	19	20.9	222	57	25.7	24	4	16.7
Iowa	30	7	23.3	25	10	40.0	60	11	18.3	8	1	12.5
Kansas	30	6	20.0	38	16	42.1	54	11	20.4	11	4	36.4
Kentucky	122	28	23.0	59	15	25.4	204	54	26.5	20	4	20.0
Louisiana	540	86	15.9	82	22	26.8	214	49	22.9	20	4	20.0
Maine	15	4	26.7	0	0	0.0	25	6	24.0	1	1	100
Maryland	521	125	24.0	132	37	28.0	67	14	20.9	28	7	25.0
Massachusetts	151	40	26.5	137	21	15.3	133	29	21.8	17	3	17.6
Michigan	326	60	18.4	69	15	21.7	198	45	22.7	36	8	22.2
Minnesota	98	13	13.3	36	9	25.0	91	16	17.6	36	7	19.4
Mississippi	313	51	16.3	22	6	27.3	102	15	14.7	11	5	45.5
Missouri	229	35	15.3	65	12	18.5	193	28	14.5	25	3	12.0
Montana	0	0	0.0	2	0	0.0	8	2	25.0	1	1	100
Nebraska	18	1	5.6	21	5	23.8	48	13	27.1	4	0	0.0
Nevada	143	30	21.0	226	41	18.1	118	29	24.6	41	10	24.4
New Hampshire	6	1	16.7	3	0	0.0	15	2	13.3	4	1	25.0
New Jersey	345	80	23.2	522	111	21.3	153	43	28.1	70	14	20.0
New Mexico	2	1	50.0	56	15	26.8	21	2	9.5	15	4	26.7
New York	866	161	18.6	839	183	21.8	363	85	23.4	158	33	20.9
North Carolina	763	124	16.3	210	57	27.1	303	60	19.8	77	18	23.4
North Dakota	14	2	14.3	5	1	20.0	9	1	11.1	10	4	40.0
Ohio	392	77	19.6	74	25	33.8	356	85	23.9	33	4	12.1
Oklahoma	116	25	21.6	65	10	15.4	150	38	25.3	63	7	11.1
Oregon	18	7	38.9	69	18	26.1	144	23	16.0	19	6	31.6
Pennsylvania	402	89	22.1	194	36	18.6	302	65	21.5	56	13	23.2
Rhode Island	7	0	0.0	29	5	17.2	28	5	17.9	4	2	50.0
South Carolina	388	105	27.1	98	29	29.6	185	44	23.8	46	15	32.6
South Dakota	1	0	0.0	3	1	33.3	14	2	14.3	22	3	13.6
Tennessee	438	75	17.1	86	24	27.9	303	60	19.8	33	4	12.1
Texas	1,463	268	18.3	2,277	507	22.3	893	168	18.8	263	55	20.9
Utah	10	2	20.0	72	17	23.6	53	9	17.0	20	4	20.0
Vermont	0	0	0.0	0	0	0.0	4	1	25.0	0	0	0.0
Virginia	469	92	19.6	104	34	32.7	219	55	25.1	42	12	28.6
Washington	116	30	25.9	144	33	22.9	162	44	27.2	69	12	17.4
West Virginia	9	4	44.4	2	0	0.0	120	19	15.8	5	0	0.0
Wisconsin	92	19	20.7	104	21	20.2	79	17	21.5	16	4	25.0
Wyoming	0	0	0.0	1	0	0.0	12	2	16.7	0	0	0.0
Region of residence^d												
Northeast	1,870	390	20.9	1,812	366	20.2	1,071	248	23.2	316	67	21.2
Midwest	2,064	391	18.9	939	216	23.0	1,591	334	21.0	297	63	21.2
South	9,401	1,914	20.4	5,124	1,133	22.1	4,419	943	21.3	849	194	22.9
West	1,211	206	17.0	3,929	794	20.2	2,021	425	21.0	687	179	26.1
Total	14,546	2,901	19.9	11,804	2,509	21.3	9,102	1,950	21.4	2,149	503	23.4

Abbreviation: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/ μ L) or percentage [footnotes only].

Note. Data are based on residence at HIV diagnosis.

^a Hispanic/Latino persons can be of any race.

^b Includes American Indian/Alaska Native, Asian, Native Hawaiian/other Pacific Islander, and multiracial persons.

^c Based on first CD4 test performed or documentation of an AIDS-defining condition \leq 3 months after HIV diagnosis.

^d Region of residence defined by the U.S. Census Bureau.

Table 7a. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV, by year of death and selected characteristics, 2018–2022—United States

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	No.	Rate per 100,000 pop.	Rate per 1,000 PWDH ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWDH ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWDH ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWDH ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWDH ^b
Gender															
Man	12,090	—	15.6	12,285	—	15.5	14,270	—	17.7	15,068	—	18.3	14,236	—	16.9
Woman	3,975	—	16.5	3,829	—	15.7	4,645	—	18.9	4,882	—	19.6	4,445	—	17.6
Transgender woman ^c	121	—	10.1	145	—	11.5	211	—	15.9	227	—	16.2	243	—	16.5
Transgender man ^c	5	—	10.6	5	—	9.7	10	—	18.1	3	—	5.0	7	—	10.6
Additional gender identity ^d	1	—	3.4	2	—	6.1	0	—	0.0	1	—	2.5	6	—	12.7
Age at death (yr)															
13–24	130	0.3	3.1	135	0.3	3.4	152	0.3	4.1	116	0.2	3.2	124	0.2	3.5
25–34	1,034	2.3	6.2	1,100	2.4	6.4	1,265	2.8	7.3	1,405	3.1	7.9	1,388	3.1	7.7
35–44	1,775	4.3	9.1	1,783	4.3	9.1	2,100	4.9	10.5	2,315	5.4	11.3	2,399	5.5	11.3
45–54	4,178	10.1	14.1	3,642	8.9	12.8	3,871	9.4	14.3	3,895	9.6	15.1	3,361	8.3	13.6
55–64	5,444	12.9	22.5	5,581	13.2	21.6	6,501	15.2	23.8	6,827	16.0	24.1	6,110	14.5	21.0
≥65	3,631	6.9	40.4	4,025	7.4	39.5	5,247	9.6	45.5	5,623	10.0	43.6	5,555	9.6	38.5
Race/ethnicity															
American Indian/Alaska Native	49	2.5	17.4	57	2.9	19.3	82	4.1	26.7	81	4.0	25.3	79	3.9	23.6
Asian ^e	84	0.5	5.8	104	0.6	6.9	107	0.6	6.8	125	0.7	7.6	108	0.6	6.2
Black/African American	6,984	20.7	16.9	7,001	20.6	16.5	8,363	24.2	19.5	8,668	24.9	19.9	8,062	23.0	18.2
Hispanic/Latino ^f	2,830	6.2	11.9	2,760	5.9	11.2	3,456	7.1	13.7	3,576	7.2	13.7	3,308	6.6	12.1
Native Hawaiian/other Pacific Islander	13	2.7	17.3	14	2.8	17.5	11	2.2	13.0	15	2.9	16.5	9	1.7	9.2
White	5,140	3.0	17.2	5,255	3.1	17.3	5,797	3.4	18.9	6,215	3.6	20.1	5,956	3.5	19.0
Multiracial	1,092	23.2	18.2	1,071	22.0	17.7	1,319	25.9	21.8	1,499	28.4	24.8	1,415	26.0	23.5
Transmission category^g															
Male-to-male sexual contact ^h	6,872	—	12.0	7,176	—	12.1	8,296	—	13.7	8,912	—	14.3	8,712	—	13.6
Injection drug use ⁱ	3,493	—	29.4	3,393	—	28.7	3,930	—	33.6	3,914	—	33.9	3,640	—	31.8
Male	2,166	—	31.5	2,082	—	30.6	2,424	—	36.1	2,397	—	36.1	2,196	—	33.5
Female	1,327	—	26.5	1,311	—	26.2	1,507	—	30.4	1,516	—	30.8	1,443	—	29.5
Male-to-male sexual contact ^h and injection drug use ⁱ	1,449	—	24.2	1,396	—	23.2	1,673	—	27.9	1,740	—	29.1	1,680	—	28.3
Heterosexual contact ^j	4,204	—	16.0	4,139	—	15.4	5,030	—	18.6	5,411	—	19.7	4,732	—	17.0
Male	1,614	—	20.3	1,677	—	20.8	1,963	—	24.2	2,132	—	26.1	1,795	—	21.8
Female	2,590	—	14.1	2,462	—	13.1	3,067	—	16.2	3,279	—	17.0	2,937	—	15.0
Other ^k	173	—	11.7	161	—	10.7	207	—	13.5	204	—	13.0	173	—	10.9
Male	109	—	14.3	100	—	12.9	126	—	16.1	115	—	14.5	101	—	12.6
Female	64	—	8.9	62	—	8.3	81	—	10.7	89	—	11.5	73	—	9.2

Table 7a. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV, by year of death and selected characteristics, 2018–2022—United States (cont)

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per
		100,000	1,000		100,000	1,000		100,000	1,000		100,000	1,000		100,000	1,000
		pop.	PWDH ^b		pop.	PWDH ^b		pop.	PWDH ^b		pop.	PWDH ^b		pop.	PWDH ^b
Region of residence^l															
Northeast	3,517	7.4	14.9	3,646	7.6	15.4	4,523	9.2	19.0	4,387	8.9	18.4	4,178	8.5	17.4
Midwest	2,010	3.5	16.3	1,959	3.4	15.6	2,343	4.0	18.3	2,398	4.1	18.4	2,387	4.1	17.9
South	7,863	7.5	16.8	7,893	7.5	16.4	9,102	8.6	18.6	9,827	9.2	19.6	8,958	8.2	17.4
West	2,802	4.3	13.7	2,768	4.2	13.2	3,168	4.8	14.9	3,569	5.4	16.4	3,414	5.1	15.4
Total^m	16,192	5.9	15.7	16,266	5.9	15.5	19,136	6.8	17.9	20,181	7.2	18.5	18,937	6.7	17.0

Abbreviations: pop, population; PWDH, persons with diagnosed HIV; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV may be due to any cause. Data are based on residence at death. When information on residence at death was unavailable, state at death (where a person's death occurred) was used. When information on both residence at death and state at death (where a person's death occurred) were unavailable, the most recent known address on or before the date of death was used. Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Death data for years 2020 and 2021 should be interpreted with caution due to excess deaths in the United States population attributed to the COVID-19 pandemic. For additional information, see https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm.

- ^a The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022.
- ^b Denominator was calculated as (No. PWDH at the end of [year X–1]) + (No. new diagnoses during year X).
- ^c “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.
- ^d Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”
- ^e Includes Asian/Pacific Islander legacy cases (see Technical Notes).
- ^f Hispanic/Latino persons can be of any race.
- ^g Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.
- ^h Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).
- ⁱ Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).
- ^j Heterosexual contact with a person known to have, or with a risk factor for, HIV.
- ^k Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.
- ^l Region of residence defined by the U.S. Census Bureau.
- ^m Includes persons of unknown race/ethnicity.

Table 7b. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV, by year of death and selected characteristics, 2018–2022—United States and 6 territories and freely associated states

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per
		100,000	1,000		100,000	1,000		100,000	1,000		100,000	1,000		100,000	1,000
Gender															
Man	12,379	—	15.7	12,563	—	15.6	14,544	—	17.7	15,354	—	18.4	14,531	—	17.0
Woman	4,051	—	16.5	3,908	—	15.7	4,731	—	18.8	4,965	—	19.6	4,521	—	17.6
Transgender woman ^c	122	—	10.1	147	—	11.6	212	—	15.9	228	—	16.2	243	—	16.4
Transgender man ^c	5	—	10.5	5	—	9.6	10	—	18.0	3	—	4.9	7	—	10.6
Additional gender identity ^d	1	—	3.4	2	—	6.0	0	—	0.0	1	—	2.5	6	—	12.7
Age at death (yr)															
13–24	134	0.3	3.2	137	0.3	3.4	154	0.3	4.1	117	0.2	3.2	124	0.2	3.4
25–34	1,054	2.3	6.3	1,117	2.4	6.4	1,273	2.8	7.2	1,419	3.1	8.0	1,403	3.1	7.7
35–44	1,823	4.4	9.2	1,839	4.4	9.2	2,154	5.0	10.7	2,360	5.4	11.4	2,436	5.5	11.3
45–54	4,266	10.1	14.2	3,751	9.1	13.0	3,952	9.5	14.4	3,968	9.7	15.2	3,420	8.4	13.6
55–64	5,563	13.0	22.6	5,688	13.3	21.6	6,626	15.3	23.9	6,946	16.1	24.0	6,248	14.7	21.1
≥65	3,718	7.0	40.5	4,093	7.5	39.3	5,338	9.6	45.3	5,741	10.1	43.5	5,677	9.7	38.5
Race/ethnicity															
American Indian/Alaska Native	49	—	17.4	57	—	19.3	82	—	26.7	81	—	25.3	79	—	23.6
Asian ^e	84	—	5.8	104	—	6.8	108	—	6.8	126	—	7.6	108	—	6.2
Black/African American	6,985	—	16.9	7,005	—	16.5	8,366	—	19.5	8,671	—	19.9	8,062	—	18.2
Hispanic/Latino ^f	3,190	—	12.6	3,108	—	11.9	3,811	—	14.2	3,940	—	14.2	3,678	—	12.7
Native Hawaiian/other Pacific Islander	16	—	20.3	16	—	19.2	11	—	12.6	15	—	15.9	9	—	8.9
White	5,141	—	17.2	5,257	—	17.3	5,799	—	18.9	6,216	—	20.1	5,956	—	19.0
Multiracial	1,093	—	18.2	1,074	—	17.8	1,319	—	21.8	1,500	—	24.8	1,416	—	23.5
Transmission category^g															
Male-to-male sexual contact ^h	6,951	—	12.0	7,248	—	12.1	8,378	—	13.7	8,976	—	14.3	8,804	—	13.6
Injection drug use ⁱ	3,646	—	29.6	3,546	—	29.0	4,063	—	33.6	4,051	—	33.9	3,766	—	31.8
Male	2,287	—	31.7	2,205	—	30.9	2,530	—	35.9	2,514	—	36.2	2,293	—	33.4
Female	1,360	—	26.6	1,341	—	26.3	1,533	—	30.3	1,537	—	30.6	1,473	—	29.5
Male-to-male sexual contact ^h and injection drug use ⁱ	1,472	—	24.2	1,421	—	23.3	1,702	—	28.0	1,768	—	29.2	1,711	—	28.4
Heterosexual contact ^j	4,307	—	16.0	4,245	—	15.5	5,144	—	18.6	5,552	—	19.8	4,845	—	17.0
Male	1,676	—	20.5	1,736	—	21.0	2,017	—	24.2	2,210	—	26.3	1,864	—	22.0
Female	2,631	—	14.0	2,509	—	13.1	3,127	—	16.2	3,342	—	17.0	2,981	—	14.9
Other ^k	182	—	12.0	165	—	10.7	210	—	13.4	205	—	12.9	181	—	11.2
Male	116	—	14.9	102	—	12.9	129	—	16.2	116	—	14.4	107	—	13.1
Female	66	—	9.0	64	—	8.5	81	—	10.6	89	—	11.4	75	—	9.3

Table 7b. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV, by year of death and selected characteristics, 2018–2022—United States and 6 territories and freely associated states (cont)

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	No.	Rate per 100,000 pop.	Rate per 1,000 PWDH ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWDH ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWDH ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWDH ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWDH ^b
Region of residence^l															
Northeast	3,517	7.4	14.9	3,646	7.6	15.4	4,523	9.2	19.0	4,387	8.9	18.4	4,178	8.5	17.4
Midwest	2,010	3.5	16.3	1,959	3.4	15.6	2,343	4.0	18.3	2,398	4.1	18.4	2,387	4.1	17.9
South	7,863	7.5	16.8	7,893	7.5	16.4	9,102	8.6	18.6	9,827	9.2	19.6	8,958	8.2	17.4
West	2,802	4.3	13.7	2,768	4.2	13.2	3,168	4.8	14.9	3,569	5.4	16.4	3,414	5.1	15.4
U.S. territories and freely associated states	366	11.8	22.2	359	11.5	21.7	361	11.2	21.9	370	11.5	22.3	371	11.6	22.3
Total^m	16,558	6.0	15.8	16,625	6.0	15.5	19,497	6.9	18.0	20,551	7.2	18.6	19,308	6.8	17.1

Abbreviations: pop, population; PWDH, persons with diagnosed HIV; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV may be due to any cause. Data are based on residence at death. When information on residence at death was unavailable, state at death (where a person's death occurred) was used. When information on both residence at death and state at death (where a person's death occurred) were unavailable, the most recent known address on or before the date of death was used. Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Death data for years 2020 and 2021 should be interpreted with caution due to excess deaths in the United States population attributed to the COVID-19 pandemic. For additional information, see https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm.

^a The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022.

^b Denominator was calculated as (No. PWDH at the end of [year X–1]) + (No. new diagnoses during year X).

^c “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^d Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^e Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^f Hispanic/Latino persons can be of any race.

^g Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^h Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

ⁱ Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^j Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^k Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^l Region of residence defined by the U.S. Census Bureau. U.S. territories and freely associated states include American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands and the Republic of Palau.

^m Includes persons of unknown race/ethnicity.

Table 7c. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV, by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states

Area of residence	No.	Rate per 100,000 pop.	Age-adjusted rate per 100,000 pop.	Rate per 1,000 PWDH ^a	Age-adjusted rate per 1,000 PWDH
2018					
Alabama	235	5.7	5.4	17.3	16.3
Alaska	9	1.5	1.5	12.7	16.4
Arizona	251	4.2	4.0	15.1	14.2
Arkansas	83	3.3	3.4	14.5	13.9
California	1,732	5.3	4.9	13.1	12.2
Colorado	141	2.9	2.8	11.2	8.7
Connecticut	182	5.9	4.9	17.2	13.2
Delaware	68	8.3	7.1	20.3	17.2
District of Columbia	201	33.3	36.0	14.2	12.6
Florida	1,935	10.6	9.4	17.1	15.4
Georgia	859	9.8	9.3	15.5	16.7
Hawaii	36	3.0	2.6	15.2	9.8
Idaho	16	1.1	1.1	13.6	12.9
Illinois	560	5.2	4.8	15.6	15.7
Indiana	196	3.5	3.4	17.0	16.0
Iowa	50	1.9	1.8	17.8	14.4
Kansas	51	2.1	2.0	16.4	13.5
Kentucky	136	3.6	3.5	18.7	18.1
Louisiana	428	11.1	10.6	20.4	21.8
Maine	20	1.7	1.5	12.3	8.9
Maryland	637	12.5	10.9	18.9	16.9
Massachusetts	304	5.1	4.4	14.6	11.9
Michigan	311	3.7	3.3	19.1	20.6
Minnesota	85	1.8	1.7	9.9	8.5
Mississippi ^b	229	9.2	9.1	24.0	23.4
Missouri	238	4.6	4.3	18.7	17.4
Montana	13	1.5	1.4	20.1	20.7
Nebraska	31	2.0	1.8	14.3	13.6
Nevada	160	6.3	5.8	15.7	14.2
New Hampshire	18	1.5	1.4	14.3	18.7
New Jersey	637	8.5	7.2	18.3	15.0
New Mexico	75	4.3	4.2	20.5	16.6
New York	1,733	10.4	9.1	13.6	11.3
North Carolina	530	6.1	5.4	16.5	15.4
North Dakota	8	1.3	1.3	17.5	24.1
Ohio	375	3.8	3.6	16.6	16.3
Oklahoma	116	3.6	3.3	18.6	18.1
Oregon	105	2.9	2.7	14.7	14.0
Pennsylvania	571	5.2	4.6	15.8	13.7
Rhode Island	41	4.5	3.9	15.6	14.2
South Carolina ^b	314	7.3	6.8	18.4	17.9
South Dakota	14	1.9	2.0	22.7	19.1
Tennessee	358	6.3	5.9	20.3	19.7
Texas	1,376	5.9	5.8	14.8	15.9
Utah ^b	45	1.8	2.0	15.1	14.0
Vermont	11	2.0	1.5	15.5	9.9
Virginia	310	4.3	4.0	13.4	12.6
Washington	212	3.4	3.1	15.5	14.7
West Virginia	48	3.1	2.8	25.1	23.8
Wisconsin	91	1.9	1.7	14.4	14.5
Wyoming	7	1.5	1.3	19.8	11.3
Subtotal	16,192	5.9	5.4	15.7	14.5
U.S. territories and freely associated states					
American Samoa	0	0.0	0.0	0.0	0.0
Guam ^b	4	3.1	3.5	37.4	35.2
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	357	12.8	11.6	22.6	20.0
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands ^b	5	5.7	3.8	9.2	6.2
Subtotal	366	11.8	10.8	22.2	19.7
Total	16,558	6.0	5.5	15.8	14.6

Table 7c. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV, by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states (cont)

Area of residence	No.	Rate per	Age-adjusted rate	Rate per	Age-adjusted rate
		100,000 pop.	per 100,000 pop.	1,000 PWDH ^a	per 1,000 PWDH
2019					
Alabama	269	6.5	6.1	19.2	20.5
Alaska	12	2.0	2.0	16.5	16.8
Arizona	233	3.8	3.7	13.5	13.0
Arkansas	109	4.3	4.2	18.3	18.7
California	1,763	5.3	4.9	13.1	12.0
Colorado	131	2.7	2.6	10.1	9.3
Connecticut	204	6.7	5.4	19.0	14.5
Delaware	76	9.2	8.4	22.1	19.9
District of Columbia	204	33.6	35.4	14.4	12.3
Florida	1,991	10.8	9.3	17.3	15.5
Georgia	828	9.4	8.8	14.5	15.2
Hawaii	43	3.6	3.0	18.0	12.9
Idaho	11	0.7	0.7	8.8	8.2
Illinois	551	5.2	4.7	15.3	15.7
Indiana	164	2.9	2.8	14.0	13.9
Iowa	61	2.3	2.0	20.9	16.8
Kansas	57	2.4	2.3	17.9	17.9
Kentucky	110	2.9	2.6	14.5	14.5
Louisiana	377	9.7	9.5	17.6	17.3
Maine	41	3.5	2.9	24.4	18.8
Maryland	615	12.1	10.5	18.2	16.1
Massachusetts	300	5.0	4.4	14.2	11.6
Michigan	276	3.3	2.9	16.4	16.2
Minnesota	83	1.8	1.6	9.4	8.9
Mississippi ^b	190	7.7	7.5	19.4	19.2
Missouri	231	4.5	4.2	17.9	18.8
Montana	13	1.4	1.4	19.5	22.1
Nebraska	33	2.1	2.1	14.8	12.4
Nevada	155	6.0	5.7	14.4	14.6
New Hampshire	18	1.5	1.3	13.7	9.8
New Jersey	627	8.3	6.9	17.8	14.0
New Mexico	57	3.2	3.0	14.9	13.4
New York	1,803	10.9	9.3	14.2	11.4
North Carolina	506	5.7	5.2	15.2	13.7
North Dakota	5	0.8	0.8	10.1	14.6
Ohio	399	4.0	3.8	17.1	17.4
Oklahoma	144	4.4	4.2	22.2	22.7
Oregon	129	3.6	3.3	17.5	14.3
Pennsylvania	599	5.5	4.8	16.3	14.0
Rhode Island	41	4.5	3.6	15.2	14.1
South Carolina ^b	313	7.2	6.4	17.7	17.5
South Dakota	11	1.5	1.7	16.8	19.0
Tennessee	314	5.5	5.2	17.3	16.3
Texas	1,473	6.2	6.1	15.3	15.8
Utah ^b	37	1.5	1.5	11.9	13.5
Vermont	13	2.4	2.1	18.1	12.8
Virginia	327	4.5	4.0	13.8	12.2
Washington	179	2.8	2.5	12.7	12.0
West Virginia	47	3.1	2.8	23.3	21.6
Wisconsin	88	1.8	1.6	13.5	11.7
Wyoming	5	1.0	0.9	14.3	15.9
Subtotal	16,266	5.9	5.4	15.5	14.1
U.S. territories and freely associated states					
American Samoa	2	5.5	6.6	666.7	365.5
Guam ^b	4	3.1	3.1	35.1	25.8
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	350	12.4	12.0	22.0	18.2
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands ^b	3	3.4	2.2	5.5	3.1
Subtotal	359	11.5	11.0	21.7	17.8
Total	16,625	6.0	5.4	15.5	14.2

Table 7c. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV, by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states (cont)

Area of residence	No.	Rate per 100,000 pop.	Age-adjusted rate per 100,000 pop.	Rate per 1,000 PWDH ^a	Age-adjusted rate per 1,000 PWDH
2020 (COVID-19 pandemic)^c					
Alabama	289	6.8	6.4	20.2	20.5
Alaska	16	2.7	2.5	21.6	18.4
Arizona	289	4.8	4.5	16.2	14.9
Arkansas	115	4.6	4.3	18.9	21.3
California	1,996	6.0	5.5	14.7	12.9
Colorado	177	3.6	3.5	13.4	11.3
Connecticut	217	7.0	5.8	20.2	15.1
Delaware	75	8.9	7.7	21.5	21.9
District of Columbia	266	46.5	46.5	19.0	15.2
Florida	2,249	12.1	10.5	19.2	16.8
Georgia	923	10.3	9.7	15.8	15.7
Hawaii	40	3.3	2.9	16.7	16.7
Idaho	19	1.2	1.1	14.8	12.7
Illinois	711	6.6	5.9	19.5	19.3
Indiana	240	4.2	4.0	20.0	18.2
Iowa	64	2.4	2.3	21.4	19.9
Kansas	63	2.6	2.4	18.8	16.8
Kentucky	158	4.2	4.0	20.0	19.6
Louisiana	467	12.1	11.6	21.5	22.7
Maine	25	2.1	1.7	15.0	10.0
Maryland	656	12.6	11.1	19.2	16.9
Massachusetts	313	5.2	4.4	14.7	11.9
Michigan	352	4.1	3.7	20.5	20.3
Minnesota	96	2.0	1.7	10.6	10.4
Mississippi ^b	243	9.8	9.1	24.7	24.3
Missouri	249	4.8	4.4	19.1	18.1
Montana	10	1.1	1.2	14.5	20.2
Nebraska	27	1.7	1.6	11.6	9.9
Nevada	181	6.9	6.3	16.3	15.2
New Hampshire	20	1.7	1.3	15.0	11.4
New Jersey	727	9.3	7.8	20.6	16.7
New Mexico	91	5.1	4.7	22.9	19.0
New York	2,436	14.2	12.2	19.2	15.4
North Carolina	655	7.4	6.6	19.2	18.7
North Dakota	8	1.2	1.2	15.3	19.1
Ohio	421	4.2	3.9	17.6	16.8
Oklahoma	158	4.8	4.5	23.4	22.2
Oregon	127	3.5	3.1	17.1	14.4
Pennsylvania	721	6.5	5.6	19.4	16.9
Rhode Island	51	5.4	4.6	18.7	11.7
South Carolina ^b	375	8.6	7.7	20.8	18.9
South Dakota	6	0.8	0.9	8.6	7.5
Tennessee	442	7.6	7.1	23.6	24.0
Texas	1,581	6.6	6.4	16.0	16.1
Utah ^b	31	1.2	1.3	9.4	7.2
Vermont	13	2.3	1.9	18.1	15.0
Virginia	397	5.4	4.9	16.5	14.8
Washington	183	2.8	2.6	12.7	12.9
West Virginia	53	3.4	3.5	24.7	23.9
Wisconsin	106	2.1	1.9	15.9	12.9
Wyoming	8	1.7	1.5	22.1	19.5
Subtotal	19,136	6.8	6.2	17.9	16.1
U.S. territories and freely associated states					
American Samoa	0	0.0	0.0	0.0	0.0
Guam ^b	1	0.8	0.6	9.2	3.7
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	353	12.1	11.0	22.3	18.0
Republic of Palau	1	5.5	7.8	100	155.3
U.S. Virgin Islands ^b	6	6.8	6.1	10.9	8.2
Subtotal	361	11.2	10.2	21.9	17.6
Total	19,497	6.9	6.2	18.0	16.2

Table 7c. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV, by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states (cont)

Area of residence	No.	Rate per	Age-adjusted rate	Rate per	Age-adjusted rate
		100,000 pop.	per 100,000 pop.	1,000 PWDH ^a	per 1,000 PWDH
		2021			
Alabama	354	8.3	7.6	24.1	23.2
Alaska	20	3.3	3.2	26.0	18.4
Arizona	353	5.7	5.4	19.1	17.3
Arkansas	128	5.0	4.7	20.3	18.1
California	2,206	6.7	6.1	15.9	13.5
Colorado	187	3.8	3.5	13.8	12.1
Connecticut	215	6.9	5.6	19.9	15.0
Delaware	103	12.0	10.0	28.8	21.9
District of Columbia	269	47.0	49.0	19.5	16.3
Florida	2,452	13.0	11.2	20.5	17.3
Georgia	1,013	11.2	10.4	16.8	17.0
Hawaii	53	4.3	3.7	21.7	14.6
Idaho	22	1.4	1.2	16.6	13.2
Illinois	630	5.9	5.3	17.4	15.7
Indiana	255	4.5	4.2	20.4	19.8
Iowa	45	1.7	1.5	14.6	13.7
Kansas	62	2.5	2.4	17.5	15.7
Kentucky	158	4.2	4.0	19.2	18.0
Louisiana	509	13.2	12.8	23.2	22.2
Maine	44	3.7	2.8	25.4	17.9
Maryland	700	13.4	11.8	20.4	17.1
Massachusetts	344	5.7	4.9	16.0	12.4
Michigan	334	3.9	3.5	19.0	18.0
Minnesota	109	2.3	2.1	11.7	10.1
Mississippi ^b	204	8.2	7.9	20.4	18.9
Missouri	284	5.5	5.0	21.4	20.0
Montana	13	1.4	1.3	17.8	16.5
Nebraska	40	2.5	2.2	16.7	16.0
Nevada	210	7.9	7.4	18.1	17.0
New Hampshire	22	1.8	1.5	15.9	12.8
New Jersey	745	9.5	8.0	20.9	16.2
New Mexico	83	4.6	4.5	20.3	18.5
New York	2,209	13.0	11.1	17.5	13.2
North Carolina	670	7.5	6.7	19.2	17.8
North Dakota	7	1.1	1.0	13.0	11.0
Ohio	516	5.2	4.7	21.1	19.3
Oklahoma	148	4.5	4.4	21.0	18.8
Oregon	148	4.0	3.6	19.5	14.9
Pennsylvania	755	6.8	5.9	20.1	17.2
Rhode Island	41	4.3	3.5	14.9	12.2
South Carolina ^b	421	9.5	8.4	22.9	21.1
South Dakota	16	2.2	2.2	21.8	19.0
Tennessee	449	7.6	7.3	23.4	21.1
Texas	1,765	7.3	7.1	17.2	17.2
Utah ^b	44	1.6	1.8	12.6	11.3
Vermont	12	2.1	1.9	16.2	12.7
Virginia	418	5.7	5.1	17.0	14.5
Washington	227	3.5	3.2	15.4	13.2
West Virginia	66	4.3	4.2	29.5	28.0
Wisconsin	100	2.0	1.8	14.5	12.5
Wyoming	3	0.6	0.7	8.0	8.1
Subtotal	20,181	7.2	6.5	18.5	16.1
U.S. territories and freely associated states					
American Samoa	0	0.0	0.0	0.0	0.0
Guam ^b	1	0.8	0.6	9.2	3.7
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	365	12.6	11.1	22.9	18.1
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands ^b	4	4.6	3.0	7.2	5.2
Subtotal	370	11.5	10.1	22.3	17.5
Total	20,551	7.2	6.5	18.6	16.1

Table 7c. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV, by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states (cont)

Area of residence	No.	Rate per	Age-adjusted rate	Rate per	Age-adjusted rate
		100,000 pop.	per 100,000 pop.	1,000 PWDH ^a	per 1,000 PWDH
2022					
Alabama	298	6.9	6.4	19.8	19.2
Alaska	15	2.5	2.5	19.2	18.4
Arizona	336	5.4	5.1	17.7	16.1
Arkansas	103	4.0	4.0	15.9	14.2
California	2,131	6.4	5.9	15.2	12.9
Colorado	179	3.6	3.3	12.9	10.7
Connecticut	241	7.7	6.1	22.2	15.1
Delaware	70	8.0	6.3	18.9	12.5
District of Columbia	226	39.3	39.6	16.4	14.1
Florida	2,202	11.5	9.8	18.0	15.6
Georgia	997	10.9	10.3	16.1	15.4
Hawaii	43	3.5	2.8	17.4	12.3
Idaho	16	1.0	0.9	11.6	10.5
Illinois	662	6.2	5.6	18.0	16.3
Indiana	226	3.9	3.6	17.4	15.8
Iowa	47	1.7	1.5	14.4	12.7
Kansas	64	2.6	2.4	17.4	16.9
Kentucky	180	4.7	4.3	20.8	19.1
Louisiana	485	12.6	12.4	21.7	21.2
Maine	35	2.9	2.6	19.4	15.8
Maryland	619	11.9	10.2	18.1	14.4
Massachusetts	362	6.0	5.1	16.7	12.3
Michigan	376	4.4	4.1	20.9	20.8
Minnesota	126	2.6	2.4	13.1	12.7
Mississippi ^b	194	7.9	7.5	19.2	18.2
Missouri	254	4.9	4.7	18.8	17.5
Montana	13	1.4	1.2	17.7	13.0
Nebraska	30	1.8	1.8	12.2	11.5
Nevada	189	7.0	6.4	15.8	14.7
New Hampshire	28	2.3	2.0	19.8	15.4
New Jersey	678	8.6	7.3	18.8	14.4
New Mexico	71	4.0	3.7	17.3	13.7
New York	2,048	12.2	10.4	16.1	12.1
North Carolina	686	7.5	6.8	19.2	17.3
North Dakota	11	1.7	1.8	19.8	21.2
Ohio	439	4.4	4.1	17.6	15.0
Oklahoma	158	4.7	4.5	21.3	21.2
Oregon	181	4.9	4.5	23.4	18.4
Pennsylvania	742	6.7	5.8	19.5	16.0
Rhode Island	33	3.5	2.8	11.8	10.5
South Carolina ^b	304	6.8	6.1	16.2	14.4
South Dakota	14	1.9	1.9	17.9	16.9
Tennessee	445	7.5	7.1	22.5	21.7
Texas	1,578	6.4	6.3	14.8	14.6
Utah ^b	23	0.8	0.9	6.3	6.7
Vermont	11	1.9	1.4	14.3	9.2
Virginia	343	4.7	4.1	13.6	11.3
Washington	212	3.2	2.9	14.0	12.5
West Virginia	70	4.6	4.4	29.7	25.7
Wisconsin	138	2.7	2.5	19.5	16.4
Wyoming	5	1.0	1.0	13.0	10.2
Subtotal	18,937	6.7	6.1	17.0	14.7
U.S. territories and freely associated states					
American Samoa	0	0.0	0.0	0.0	0.0
Guam ^b	0	0.0	0.0	0.0	0.0
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	370	12.8	10.8	23.2	16.5
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands ^b	1	1.1	0.7	1.8	1.2
Subtotal	371	11.6	9.8	22.3	15.9
Total	19,308	6.8	6.1	17.1	14.8

Abbreviations: pop, population; PWDH, persons with diagnosed HIV; CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV may be due to any cause. Data are based on residence at death. When information on residence at death was unavailable, state at death (where a person's death occurred) was used. When information on both residence at death and state at death (where a person's death occurred) were unavailable, the most recent known address on or before the date of death was used. Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Death data for years 2020 and 2021 should be interpreted with caution due to excess deaths in the United States population attributed to the COVID-19 pandemic. For additional information, see https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm.

^a Denominator was calculated as (No. PWDH at the end of [year X–1]) + (No. new diagnoses during year X).

^b Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2022.

^c The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022.

Table 7d. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV disease ever classified as stage 3 (AIDS), by year of death and selected characteristics, 2018–2022—United States

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per
		100,000 pop.	1,000 PWA ^b		100,000 pop.	1,000 PWA ^b		100,000 pop.	1,000 PWA ^b		100,000 pop.	1,000 PWA ^b		100,000 pop.	1,000 PWA ^b
Gender															
Man	9,442	—	23.3	9,441	—	23.2	10,885	—	26.6	11,311	—	27.6	10,748	—	26.1
Woman	3,115	—	24.4	2,921	—	22.8	3,484	—	27.1	3,652	—	28.4	3,281	—	25.5
Transgender woman ^c	89	—	16.5	104	—	18.7	154	—	27.0	151	—	26.0	169	—	28.4
Transgender man ^c	2	—	10.6	3	—	15.2	6	—	30.5	2	—	10.0	5	—	23.8
Additional gender identity ^d	1	—	9.8	2	—	19.0	0	—	0.0	0	—	0.0	5	—	34.7
Age at death (yr)															
13–24	77	0.2	10.5	72	0.1	11.2	74	0.1	13.2	49	0.1	9.6	59	0.1	11.9
25–34	723	1.6	14.6	713	1.5	14.5	760	1.7	15.8	805	1.8	17.1	823	1.8	18.0
35–44	1,341	3.3	15.1	1,293	3.1	14.8	1,506	3.5	17.7	1,546	3.6	18.3	1,656	3.8	19.6
45–54	3,372	8.1	19.2	2,887	7.1	17.5	3,042	7.4	19.8	2,997	7.4	20.9	2,570	6.4	19.1
55–64	4,374	10.4	27.9	4,426	10.4	26.6	5,152	12.0	29.6	5,374	12.6	29.9	4,823	11.5	26.4
≥65	2,762	5.3	46.3	3,080	5.7	45.6	3,995	7.3	52.3	4,345	7.7	51.0	4,277	7.4	45.2
Race/ethnicity															
American Indian/Alaska Native	36	1.8	26.4	44	2.2	31.7	56	2.8	39.5	55	2.7	38.0	54	2.7	36.6
Asian ^e	64	0.4	10.0	78	0.5	11.8	80	0.5	11.7	105	0.6	15.0	86	0.5	11.9
Black/African American	5,457	16.2	25.3	5,365	15.8	24.7	6,305	18.2	28.9	6,450	18.6	29.4	6,035	17.3	27.5
Hispanic/Latino ^f	2,303	5.0	18.1	2,223	4.7	17.2	2,748	5.7	21.1	2,816	5.7	21.4	2,600	5.2	19.5
Native Hawaiian/other Pacific Islander	9	1.9	24.8	12	2.4	32.1	10	2.0	26.8	12	2.3	30.5	5	1.0	12.2
White	3,879	2.3	25.4	3,864	2.3	25.3	4,256	2.5	28.0	4,490	2.6	29.6	4,303	2.5	28.4
Multiracial	901	19.2	26.6	884	18.2	26.1	1,074	21.1	31.8	1,188	22.5	35.4	1,125	20.6	33.9
Transmission category^g															
Male-to-male sexual contact ^h	5,233	—	19.0	5,400	—	19.3	6,217	—	22.1	6,548	—	23.0	6,497	—	22.5
Injection drug use ⁱ	2,769	—	36.3	2,643	—	35.2	3,043	—	41.2	3,018	—	41.8	2,787	—	39.3
Male	1,720	—	37.6	1,634	—	36.4	1,879	—	42.7	1,854	—	43.2	1,689	—	40.2
Female	1,049	—	34.4	1,009	—	33.4	1,165	—	39.1	1,164	—	39.7	1,099	—	38.1
Male-to-male sexual contact ^h and injection drug use ⁱ	1,226	—	33.6	1,129	—	31.3	1,337	—	37.4	1,327	—	37.8	1,285	—	37.2
Heterosexual contact ^j	3,275	—	23.2	3,158	—	22.1	3,746	—	26.1	4,054	—	28.1	3,486	—	24.1
Male	1,259	—	26.2	1,298	—	26.8	1,496	—	30.8	1,640	—	33.7	1,365	—	28.1
Female	2,017	—	21.6	1,860	—	19.8	2,250	—	23.7	2,414	—	25.3	2,121	—	22.1
Other ^k	146	—	17.1	141	—	16.4	186	—	21.6	169	—	19.7	153	—	17.7
Male	93	—	20.6	86	—	19.0	111	—	24.6	93	—	20.7	86	—	18.9
Female	53	—	13.1	55	—	13.5	75	—	18.4	76	—	18.6	68	—	16.4

Table 7d. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV disease ever classified as stage 3 (AIDS), by year of death and selected characteristics, 2018–2022—United States (cont)

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	No.	Rate per 100,000 pop.	Rate per 1,000 PWA ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWA ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWA ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWA ^b	No.	Rate per 100,000 pop.	Rate per 1,000 PWA ^b
Region of residence^l															
Northeast	2,747	5.7	20.8	2,847	6.0	21.7	3,487	7.1	26.8	3,360	6.8	26.1	3,198	6.5	25.0
Midwest	1,537	2.7	25.2	1,446	2.5	23.5	1,749	3.0	28.2	1,739	3.0	27.9	1,757	3.0	28.0
South	6,087	5.8	25.6	6,013	5.7	24.9	6,833	6.4	28.1	7,316	6.8	29.8	6,647	6.1	26.8
West	2,278	3.5	21.4	2,165	3.3	20.2	2,460	3.7	22.8	2,701	4.1	25.0	2,606	3.9	24.0
Population area of residence^m															
Metropolitan statistical areas (pop. ≥500,000)	8,033	4.2	18.6	8,248	4.3	18.8	9,354	4.9	21.3	9,615	5.0	21.9	8,847	4.6	20.1
Metropolitan areas (pop. 50,000–499,999)	1,132	2.4	22.7	1,174	2.5	22.8	1,231	2.6	23.7	1,351	2.8	25.6	1,167	2.4	21.8
Nonmetropolitan areas (pop. <50,000)	670	1.7	22.4	734	1.9	24.1	804	1.9	26.1	855	2.1	27.6	723	1.7	22.9
Totalⁿ	12,649	4.6	23.5	12,471	4.5	23.0	14,529	5.2	26.7	15,116	5.4	27.7	14,208	5.0	26.0

Abbreviations: pop, population; PWA, persons with diagnosed HIV disease ever classified as stage 3 (AIDS); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV may be due to any cause. Data are based on residence at death. When information on residence at death was unavailable, state at death (where a person’s death occurred) was used. When information on both residence at death and state at death (where a person’s death occurred) were unavailable, the most recent known address on or before the date of death was used. Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Death data for years 2020 and 2021 should be interpreted with caution due to excess deaths in the United States population attributed to the COVID-19 pandemic. For additional information, see https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm.

- ^a The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022.
- ^b Denominator was calculated as (No. PWA at the end of [year X–1]) + (No. new diagnoses during year X).
- ^c “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.
- ^d Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”
- ^e Includes Asian/Pacific Islander legacy cases (see Technical Notes).
- ^f Hispanic/Latino persons can be of any race.
- ^g Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.
- ^h Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).
- ⁱ Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).
- ^j Heterosexual contact with a person known to have, or with a risk factor for, HIV.
- ^k Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.
- ^l Region of residence defined by the U.S. Census Bureau.
- ^m Population area of residence defined by the U.S. Office of Management and Budget.
- ⁿ Includes persons of unknown race/ethnicity.

Table 7e. Deaths (any cause) of persons aged ≥ 13 years with diagnosed HIV disease ever classified as stage 3 (AIDS), by year of death and selected characteristics, 2018–2022—United States and 6 territories and freely associated states

	2018			2019			2020 (COVID-19 pandemic) ^a			2021			2022		
	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per	No.	Rate per	Rate per
		100,000 pop.	1,000 PWA ^b		100,000 pop.	1,000 PWA ^b		100,000 pop.	1,000 PWA ^b		100,000 pop.	1,000 PWA ^b		100,000 pop.	1,000 PWA ^b
Gender															
Man	9,638	—	23.5	9,635	—	23.3	11,077	—	26.7	11,495	—	27.6	10,955	—	26.2
Woman	3,163	—	24.3	2,976	—	22.8	3,537	—	27.0	3,706	—	28.2	3,337	—	25.4
Transgender woman ^c	90	—	16.6	106	—	19.0	155	—	27.1	151	—	25.9	169	—	28.3
Transgender man ^c	2	—	10.5	3	—	15.1	6	—	30.2	2	—	9.9	5	—	23.6
Additional gender identity ^d	1	—	9.7	2	—	18.9	0	—	0.0	0	—	0.0	5	—	34.7
Age at death (yr)															
13–24	81	0.2	10.9	73	0.1	11.3	74	0.1	13.0	50	0.1	9.7	59	0.1	11.8
25–34	736	1.6	14.7	722	1.6	14.5	765	1.7	15.8	810	1.8	17.1	832	1.8	18.0
35–44	1,374	3.3	15.3	1,322	3.1	15.0	1,539	3.6	17.9	1,570	3.6	18.4	1,685	3.8	19.8
45–54	3,430	8.2	19.2	2,969	7.2	17.7	3,097	7.5	19.8	3,046	7.4	20.9	2,607	6.4	19.1
55–64	4,453	10.4	27.9	4,506	10.5	26.6	5,235	12.1	29.5	5,458	12.7	29.8	4,927	11.6	26.5
≥65	2,820	5.3	46.2	3,130	5.7	45.3	4,065	7.3	52.0	4,420	7.8	50.7	4,361	7.4	45.0
Race/ethnicity															
American Indian/Alaska Native	36	—	26.4	44	—	31.7	56	—	39.5	55	—	38.0	54	—	36.6
Asian ^e	64	—	9.9	78	—	11.7	81	—	11.8	106	—	15.0	86	—	11.8
Black/African American	5,457	—	25.3	5,367	—	24.6	6,307	—	28.8	6,450	—	29.4	6,035	—	27.5
Hispanic/Latino ^f	2,544	—	18.7	2,466	—	17.9	2,990	—	21.5	3,052	—	21.8	2,862	—	20.2
Native Hawaiian/other Pacific Islander	11	—	28.6	14	—	35.6	10	—	25.6	12	—	29.1	5	—	11.7
White	3,880	—	25.4	3,865	—	25.3	4,257	—	28.0	4,490	—	29.6	4,303	—	28.4
Multiracial	902	—	26.6	887	—	26.2	1,074	—	31.8	1,189	—	35.4	1,126	—	33.9
Transmission category^g															
Male-to-male sexual contact ^h	5,284	—	19.0	5,456	—	19.4	6,274	—	22.1	6,591	—	22.9	6,563	—	22.6
Injection drug use ⁱ	2,872	—	36.4	2,746	—	35.3	3,133	—	41.0	3,102	—	41.5	2,876	—	39.2
Male	1,801	—	37.6	1,717	—	36.6	1,953	—	42.5	1,927	—	43.0	1,752	—	39.9
Female	1,071	—	34.4	1,029	—	33.4	1,180	—	38.8	1,175	—	39.3	1,124	—	38.2
Male-to-male sexual contact ^h and injection drug use ⁱ	1,243	—	33.6	1,145	—	31.3	1,358	—	37.5	1,343	—	37.7	1,310	—	37.4
Heterosexual contact ^j	3,341	—	23.1	3,230	—	22.1	3,822	—	26.0	4,147	—	28.1	3,565	—	24.1
Male	1,300	—	26.3	1,337	—	26.8	1,534	—	30.7	1,690	—	33.8	1,413	—	28.3
Female	2,040	—	21.5	1,894	—	19.7	2,288	—	23.6	2,457	—	25.2	2,152	—	22.0
Other ^k	154	—	17.7	144	—	16.5	187	—	21.4	170	—	19.5	158	—	18.0
Male	99	—	21.5	88	—	19.0	112	—	24.3	94	—	20.5	91	—	19.7
Female	55	—	13.4	56	—	13.5	75	—	18.1	76	—	18.3	68	—	16.1
Region of residence^l															
Northeast	2,747	5.7	20.8	2,847	6.0	21.7	3,487	7.1	26.8	3,360	6.8	26.1	3,198	6.5	25.0
Midwest	1,537	2.7	25.2	1,446	2.5	23.5	1,749	3.0	28.2	1,739	3.0	27.9	1,757	3.0	28.0
South	6,087	5.8	25.6	6,013	5.7	24.9	6,833	6.4	28.1	7,316	6.8	29.8	6,647	6.1	26.8
West	2,278	3.5	21.4	2,165	3.3	20.2	2,460	3.7	22.8	2,701	4.1	25.0	2,606	3.9	24.0
U.S. territories and freely associated states	245	7.9	27.6	251	8.0	28.3	246	7.6	28.0	238	7.4	27.2	263	8.2	30.2
Total^m	12,894	4.6	23.6	12,722	4.6	23.1	14,775	5.2	26.8	15,354	5.4	27.7	14,471	5.1	26.0

Abbreviations: pop, population; PWA, persons with diagnosed HIV disease ever classified as stage 3 (AIDS); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV may be due to any cause. Data are based on residence at death. When information on residence at death was unavailable, state at death (where a person's death occurred) was used. When information on both residence at death and state at death (where a person's death occurred) were unavailable, the most recent known address on or before the date of death was used. Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Death data for years 2020 and 2021 should be interpreted with caution due to excess deaths in the United States population attributed to the COVID-19 pandemic. For additional information, see https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm.

^a The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022.

^b Denominator was calculated as (No. PWA at the end of [year X–1]) + (No. new diagnoses during year X).

^c "Transgender woman" includes persons who were assigned male sex at birth but have ever identified as a woman. "Transgender man" includes persons who were assigned female sex at birth but have ever identified as a man.

^d Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes "nonbinary," "gender queer," and "two-spirit."

^e Includes Asian/Pacific Islander legacy cases (see Technical Notes).

^f Hispanic/Latino persons can be of any race.

^g Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person's sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^h Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

ⁱ Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^j Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^k Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^l Region of residence defined by the U.S. Census Bureau. U.S. territories and freely associated states include American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands and the Republic of Palau.

^m Includes persons of unknown race/ethnicity.

Table 7f. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV disease ever classified as stage 3 (AIDS), by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states

	No.	Rate per 100,000 pop.	Age-adjusted rate per 100,000 pop.	Rate per 1,000 PWA ^a	Age-adjusted rate per 1,000 PWA
2018					
Alabama	168	4.1	3.9	27.9	25.6
Alaska	8	1.3	1.3	20.9	22.2
Arizona	200	3.3	3.2	25.4	24.9
Arkansas	62	2.5	2.5	23.8	22.8
California	1,415	4.3	4.0	20.0	18.8
Colorado	114	2.4	2.3	20.7	15.5
Connecticut	147	4.8	3.9	22.6	15.6
Delaware	54	6.6	5.6	26.5	20.3
District of Columbia	154	25.5	27.4	20.1	20.1
Florida	1,536	8.4	7.5	25.3	21.9
Georgia	660	7.6	7.2	23.6	22.6
Hawaii	31	2.6	2.2	22.6	14.5
Idaho	13	0.9	0.9	22.4	17.0
Illinois	429	4.0	3.6	23.9	22.1
Indiana	145	2.6	2.5	25.3	23.5
Iowa	37	1.4	1.3	24.1	16.2
Kansas	40	1.7	1.5	24.8	24.7
Kentucky	101	2.7	2.5	28.5	27.0
Louisiana	329	8.5	8.2	30.4	29.3
Maine	16	1.4	1.3	19.5	14.4
Maryland	503	9.9	8.6	28.1	23.5
Massachusetts	230	3.9	3.4	20.3	14.5
Michigan	241	2.8	2.5	29.1	28.5
Minnesota	66	1.4	1.3	16.8	13.0
Mississippi ^b	187	7.5	7.6	39.5	38.2
Missouri	182	3.5	3.3	27.9	26.4
Montana	10	1.1	1.0	28.3	28.5
Nebraska	24	1.5	1.4	22.4	15.3
Nevada	135	5.3	4.9	27.7	25.2
New Hampshire	15	1.3	1.2	24.1	19.7
New Jersey	472	6.3	5.3	26.1	23.6
New Mexico	53	3.0	3.0	26.9	24.7
New York	1,407	8.5	7.4	19.2	14.5
North Carolina	362	4.1	3.7	25.0	21.0
North Dakota	6	1.0	0.9	29.3	23.9
Ohio	290	2.9	2.8	26.9	25.2
Oklahoma	86	2.6	2.5	28.3	33.7
Oregon	88	2.5	2.2	22.1	17.1
Pennsylvania	420	3.8	3.3	21.3	15.9
Rhode Island	32	3.5	3.1	22.0	16.8
South Carolina ^b	238	5.5	5.2	25.9	22.0
South Dakota	12	1.7	1.8	41.5	40.8
Tennessee	274	4.8	4.5	31.3	28.2
Texas	1,108	4.8	4.7	23.7	24.7
Utah ^b	35	1.4	1.5	23.8	37.7
Vermont	8	1.5	1.1	21.0	11.7
Virginia	226	3.2	2.9	20.4	19.3
Washington	169	2.7	2.5	23.4	20.7
West Virginia	39	2.5	2.2	37.8	36.9
Wisconsin	65	1.3	1.2	21.3	18.2
Wyoming	7	1.5	1.3	38.7	19.5
Subtotal	12,649	4.6	4.2	23.5	21.0
U.S. territories and freely associated states					
American Samoa	0	0.0	0.0	0.0	0.0
Guam ^b	3	2.4	2.8	66.7	77.3
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	240	8.6	7.8	28.2	33.4
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands ^b	2	2.3	1.5	6.9	4.2
Subtotal	245	7.9	7.2	27.6	32.6
Total	12,894	4.6	4.3	23.6	21.1

Table 7f. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV disease ever classified as stage 3 (AIDS), by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states (cont)

	No.	Rate per 100,000 pop.	Age-adjusted rate per 100,000 pop.	Rate per 1,000 PWA ^a	Age-adjusted rate per 1,000 PWA
2019					
Alabama	170	4.1	4.0	27.5	24.3
Alaska	9	1.5	1.4	23.7	20.5
Arizona	170	2.8	2.7	21.2	17.7
Arkansas	78	3.1	3.0	29.0	33.6
California	1,383	4.2	3.9	19.5	20.8
Colorado	100	2.1	1.9	17.9	14.8
Connecticut	168	5.5	4.5	25.9	19.8
Delaware	62	7.5	7.1	29.9	29.0
District of Columbia	149	24.6	26.0	19.8	15.0
Florida	1,554	8.4	7.2	25.4	22.8
Georgia	642	7.3	6.8	22.5	21.7
Hawaii	39	3.3	2.7	28.5	22.5
Idaho	11	0.7	0.7	17.7	14.2
Illinois	414	3.9	3.5	23.2	21.9
Indiana	130	2.3	2.2	22.6	18.6
Iowa	45	1.7	1.4	29.3	20.0
Kansas	42	1.7	1.7	26.1	28.7
Kentucky	85	2.3	2.0	23.6	20.1
Louisiana	297	7.7	7.5	27.2	28.5
Maine	32	2.7	2.3	38.1	35.3
Maryland	459	9.0	7.8	25.8	21.1
Massachusetts	224	3.8	3.2	19.7	15.6
Michigan	216	2.6	2.2	25.7	24.5
Minnesota	58	1.2	1.1	14.6	14.2
Mississippi ^b	134	5.4	5.4	28.1	24.8
Missouri	168	3.3	3.0	25.7	29.9
Montana	9	1.0	1.0	26.3	19.7
Nebraska	17	1.1	1.0	15.6	9.1
Nevada	119	4.6	4.4	23.6	22.3
New Hampshire	14	1.2	1.1	22.1	15.9
New Jersey	475	6.3	5.2	26.4	21.1
New Mexico	38	2.2	2.0	18.9	15.6
New York	1,448	8.7	7.4	20.0	15.4
North Carolina	354	4.0	3.6	23.7	20.6
North Dakota	5	0.8	0.8	22.5	22.8
Ohio	277	2.8	2.6	25.0	26.2
Oklahoma	120	3.7	3.4	38.7	34.6
Oregon	105	2.9	2.7	25.9	20.9
Pennsylvania	441	4.0	3.5	22.2	17.0
Rhode Island	35	3.8	3.0	24.0	19.6
South Carolina ^b	233	5.3	4.8	24.9	20.9
South Dakota	8	1.1	1.2	26.3	27.5
Tennessee	245	4.3	4.0	27.8	22.3
Texas	1,143	4.8	4.7	24.0	23.0
Utah ^b	31	1.2	1.3	20.8	20.5
Vermont	10	1.8	1.6	26.5	17.3
Virginia	255	3.5	3.1	22.6	20.0
Washington	147	2.3	2.1	20.2	20.5
West Virginia	33	2.1	1.8	31.7	24.6
Wisconsin	66	1.3	1.1	21.1	16.6
Wyoming	4	0.8	0.6	22.1	20.5
Subtotal	12,471	4.5	4.1	23.0	20.5
U.S. territories and freely associated states					
American Samoa	2	5.5	6.6	1000.0	365.5
Guam ^b	4	3.1	3.1	88.9	51.4
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	243	8.6	8.1	28.5	25.5
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands ^b	2	2.3	1.5	7.1	3.8
Subtotal	251	8.0	7.5	28.3	25.0
Total	12,722	4.6	4.1	23.1	20.6

Table 7f. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV disease ever classified as stage 3 (AIDS), by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states (cont)

	No.	Rate per 100,000 pop.	Age-adjusted rate per 100,000 pop.	Rate per 1,000 PWA ^a	Age-adjusted rate per 1,000 PWA
2020 (COVID-19 pandemic)^c					
Alabama	185	4.4	4.1	29.4	28.0
Alaska	11	1.8	1.7	28.9	22.5
Arizona	206	3.4	3.1	25.1	23.3
Arkansas	81	3.2	3.0	29.4	32.1
California	1,586	4.8	4.4	22.4	19.8
Colorado	120	2.4	2.4	21.3	21.1
Connecticut	167	5.4	4.5	26.0	18.2
Delaware	57	6.7	5.8	27.3	29.9
District of Columbia	199	34.8	35.5	26.8	19.6
Florida	1,766	9.5	8.2	28.8	24.8
Georgia	726	8.1	7.6	25.0	24.1
Hawaii	29	2.4	2.1	21.5	16.4
Idaho	10	0.7	0.6	15.9	12.7
Illinois	535	5.0	4.5	30.0	26.9
Indiana	164	2.9	2.7	28.1	22.5
Iowa	50	1.9	1.8	32.6	29.0
Kansas	46	1.9	1.7	27.3	20.0
Kentucky	117	3.1	3.0	31.5	32.1
Louisiana	340	8.8	8.5	31.1	30.5
Maine	19	1.6	1.2	22.7	12.8
Maryland	496	9.5	8.3	27.9	22.9
Massachusetts	234	3.9	3.2	20.7	15.2
Michigan	261	3.0	2.7	30.8	30.5
Minnesota	69	1.4	1.2	17.0	14.4
Mississippi ^b	172	7.0	6.6	35.9	35.0
Missouri	190	3.7	3.3	29.1	29.1
Montana	7	0.8	0.8	19.8	10.6
Nebraska	23	1.4	1.4	20.2	16.2
Nevada	149	5.7	5.1	28.8	27.0
New Hampshire	14	1.2	0.8	21.9	14.5
New Jersey	528	6.7	5.6	29.5	24.0
New Mexico	64	3.6	3.2	31.3	20.9
New York	1,956	11.4	9.7	27.3	21.6
North Carolina	439	5.0	4.3	28.9	25.3
North Dakota	7	1.1	1.1	29.3	29.7
Ohio	323	3.2	2.9	28.7	27.6
Oklahoma	124	3.8	3.5	39.1	37.6
Oregon	102	2.8	2.5	25.6	23.3
Pennsylvania	518	4.7	4.0	26.1	20.1
Rhode Island	42	4.4	3.7	29.1	15.6
South Carolina ^b	283	6.5	5.9	30.0	26.4
South Dakota	3	0.4	0.5	9.9	5.8
Tennessee	307	5.3	4.9	33.9	34.2
Texas	1,211	5.1	4.9	25.2	23.5
Utah ^b	22	0.8	0.9	14.4	10.4
Vermont	9	1.6	1.4	23.7	26.1
Virginia	295	4.0	3.6	25.8	23.1
Washington	147	2.3	2.1	20.1	19.6
West Virginia	35	2.3	2.2	32.9	32.0
Wisconsin	78	1.6	1.4	24.5	16.2
Wyoming	7	1.4	1.3	37.8	30.9
Subtotal	14,529	5.2	4.7	26.7	23.4
U.S. territories and freely associated states					
American Samoa	0	0.0	0.0	0.0	0.0
Guam ^b	1	0.8	0.6	23.8	8.2
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	240	8.3	7.3	28.4	22.2
Republic of Palau	1	5.5	7.8	166.7	155.3
U.S. Virgin Islands ^b	4	4.6	4.7	13.8	14.8
Subtotal	246	7.6	6.8	28.0	22.0
Total	14,775	5.2	4.7	26.8	23.4

Table 7f. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV disease ever classified as stage 3 (AIDS), by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states (cont)

	No.	Rate per 100,000 pop.	Age-adjusted rate per 100,000 pop.	Rate per 1,000 PWA ^a	Age-adjusted rate per 1,000 PWA
2021					
Alabama	246	5.8	5.2	38.5	31.0
Alaska	17	2.8	2.7	44.3	31.5
Arizona	265	4.3	4.0	31.6	27.1
Arkansas	94	3.7	3.4	33.5	29.4
California	1,672	5.1	4.6	23.6	19.6
Colorado	148	3.0	2.8	26.2	23.4
Connecticut	161	5.2	4.1	25.3	23.6
Delaware	81	9.4	7.5	37.9	27.2
District of Columbia	199	34.8	36.4	27.4	19.4
Florida	1,879	10.0	8.4	30.5	26.0
Georgia	764	8.4	7.8	25.9	24.2
Hawaii	46	3.8	3.2	34.2	21.3
Idaho	13	0.8	0.7	20.4	11.0
Illinois	455	4.2	3.8	25.9	22.5
Indiana	183	3.2	2.9	30.5	33.0
Iowa	34	1.3	1.1	21.9	18.8
Kansas	43	1.8	1.6	24.6	17.8
Kentucky	102	2.7	2.5	27.0	22.5
Louisiana	365	9.4	9.1	33.2	29.9
Maine	31	2.6	2.0	35.6	22.3
Maryland	518	9.9	8.6	29.3	21.7
Massachusetts	243	4.0	3.4	21.6	15.6
Michigan	246	2.9	2.6	28.9	25.2
Minnesota	68	1.4	1.3	16.6	15.7
Mississippi ^b	144	5.8	5.5	30.0	24.7
Missouri	213	4.1	3.6	32.6	32.4
Montana	8	0.8	0.8	21.6	17.4
Nebraska	31	1.9	1.8	26.7	25.1
Nevada	166	6.2	5.8	31.5	26.5
New Hampshire	15	1.2	1.1	22.6	15.6
New Jersey	554	7.0	5.9	31.2	23.2
New Mexico	56	3.1	2.8	27.1	24.9
New York	1,766	10.4	8.7	25.1	18.9
North Carolina	453	5.1	4.5	29.5	24.9
North Dakota	7	1.1	1.0	29.7	20.1
Ohio	375	3.8	3.4	33.0	29.1
Oklahoma	107	3.2	3.2	33.4	30.4
Oregon	117	3.2	2.8	29.4	21.0
Pennsylvania	554	5.0	4.2	28.0	20.7
Rhode Island	29	3.0	2.3	20.2	13.0
South Carolina ^b	323	7.3	6.3	33.8	32.2
South Dakota	15	2.0	2.1	44.5	32.1
Tennessee	322	5.5	5.1	35.5	28.1
Texas	1,359	5.6	5.5	27.8	25.3
Utah ^b	31	1.2	1.3	19.4	14.6
Vermont	7	1.2	1.0	18.2	9.6
Virginia	319	4.3	3.8	27.4	23.1
Washington	159	2.4	2.2	21.6	19.5
West Virginia	41	2.7	2.3	37.8	28.4
Wisconsin	69	1.4	1.2	21.6	15.0
Wyoming	3	0.6	0.7	16.0	15.7
Subtotal	15,116	5.4	4.8	27.7	23.1
U.S. territories and freely associated states					
American Samoa	0	0.0	0.0	0.0	0.0
Guam ^b	1	0.8	0.6	23.3	8.2
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	235	8.1	7.0	28.0	25.7
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands ^b	2	2.3	1.5	6.9	4.2
Subtotal	238	7.4	6.4	27.2	24.8
Total	15,354	5.4	4.8	27.7	23.1

Table 7f. Deaths (any cause) of persons aged ≥13 years with diagnosed HIV disease ever classified as stage 3 (AIDS), by year of death and area of residence, 2018–2022—United States and 6 territories and freely associated states (cont)

	No.	Rate per 100,000 pop.	Age-adjusted rate per 100,000 pop.	Rate per 1,000 PWA ^a	Age-adjusted rate per 1,000 PWA
2022					
Alabama	204	4.8	4.3	31.5	33.1
Alaska	13	2.1	2.2	34.6	29.4
Arizona	244	3.9	3.7	28.8	26.4
Arkansas	68	2.7	2.7	24.2	23.2
California	1,635	4.9	4.5	23.0	21.7
Colorado	131	2.6	2.4	22.7	18.8
Connecticut	195	6.2	4.9	30.9	20.0
Delaware	59	6.8	5.0	27.1	16.3
District of Columbia	161	28.0	28.5	22.4	22.0
Florida	1,681	8.7	7.4	27.3	24.8
Georgia	748	8.2	7.7	25.0	21.1
Hawaii	30	2.5	2.0	22.3	19.4
Idaho	12	0.7	0.7	18.8	14.2
Illinois	495	4.6	4.2	28.1	22.3
Indiana	174	3.0	2.8	28.5	22.6
Iowa	34	1.3	1.1	21.5	16.1
Kansas	48	2.0	1.7	26.8	23.7
Kentucky	128	3.4	3.0	32.7	29.6
Louisiana	359	9.4	9.1	32.7	31.9
Maine	28	2.3	2.1	31.7	26.4
Maryland	453	8.7	7.4	26.0	19.0
Massachusetts	258	4.3	3.5	23.0	14.8
Michigan	277	3.2	3.0	32.2	31.1
Minnesota	91	1.9	1.7	21.8	18.3
Mississippi ^b	143	5.8	5.6	29.9	25.1
Missouri	181	3.5	3.3	27.7	26.3
Montana	10	1.0	0.9	26.7	20.1
Nebraska	25	1.5	1.5	21.5	19.1
Nevada	152	5.6	5.1	28.6	22.2
New Hampshire	18	1.5	1.2	26.9	21.7
New Jersey	497	6.3	5.3	28.2	23.3
New Mexico	50	2.8	2.5	24.4	19.8
New York	1,634	9.7	8.2	23.5	17.5
North Carolina	433	4.8	4.3	27.8	26.9
North Dakota	9	1.4	1.4	36.7	31.8
Ohio	313	3.1	2.8	27.3	22.4
Oklahoma	114	3.4	3.2	34.3	33.3
Oregon	140	3.8	3.5	35.4	27.5
Pennsylvania	538	4.8	4.1	27.2	25.0
Rhode Island	24	2.5	2.1	17.0	14.0
South Carolina ^b	230	5.1	4.6	23.8	20.1
South Dakota	10	1.3	1.3	28.8	21.9
Tennessee	316	5.3	5.0	34.3	30.2
Texas	1,241	5.0	4.9	24.9	23.4
Utah ^b	20	0.7	0.8	12.4	23.4
Vermont	6	1.1	0.8	15.2	8.8
Virginia	256	3.5	3.1	21.8	18.3
Washington	166	2.5	2.2	22.4	16.4
West Virginia	53	3.5	3.2	47.3	37.3
Wisconsin	100	2.0	1.7	31.2	23.7
Wyoming	3	0.6	0.7	15.8	12.1
Subtotal	14,208	5.0	4.5	26.0	22.4
U.S. territories and freely associated states					
American Samoa	0	0.0	0.0	0.0	0.0
Guam ^b	0	0.0	0.0	0.0	0.0
Northern Mariana Islands	0	0.0	0.0	0.0	0.0
Puerto Rico	262	9.1	7.6	31.3	24.4
Republic of Palau	0	0.0	0.0	0.0	0.0
U.S. Virgin Islands ^b	1	1.1	0.7	3.4	1.9
Subtotal	263	8.2	6.9	30.2	23.5
Total	14,471	5.1	4.5	26.0	22.4

Abbreviations: pop., population; PWA, persons with diagnosed HIV disease ever classified as stage 3 (AIDS); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Deaths of persons with diagnosed HIV may be due to any cause. Data are based on residence at death. When information on residence at death was unavailable, state at death (where a person's death occurred) was used. When information on both residence at death and state at death (where a person's death occurred) were unavailable, the most recent known address on or before the date of death was used. Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Death data for years 2020 and 2021 should be interpreted with caution due to excess deaths in the United States population attributed to the COVID-19 pandemic. For additional information, see https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm.

^a Denominator was calculated as (No. PWA at the end of [year X–1]) + (No. new diagnoses during year X).

^b Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2022.

^c The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022.

Table 8a. Persons aged ≥13 years surviving >3 years after HIV diagnosis during 2014–2019, by year of diagnosis and selected characteristics—United States

	No.	Proportion survived >3 years					
		2014	2015	2016	2017	2018	2019
Gender							
Man	181,318	0.95	0.95	0.95	0.95	0.95	0.95
Woman	42,769	0.94	0.94	0.94	0.94	0.94	0.93
Transgender woman ^a	4,103	0.98	0.98	0.97	0.98	0.98	0.97
Transgender man ^a	215	*	*	*	*	*	*
Additional gender identity ^b	138	*	*	*	*	*	*
Age at diagnosis (yr)							
13–24	50,402	0.99	0.99	0.99	0.99	0.99	0.99
25–34	78,125	0.97	0.98	0.98	0.97	0.97	0.97
35–44	43,785	0.95	0.95	0.95	0.95	0.95	0.95
45–54	33,846	0.91	0.92	0.91	0.91	0.91	0.91
55–64	17,304	0.84	0.85	0.86	0.86	0.87	0.86
≥65	5,081	0.74	0.73	0.75	0.77	0.77	0.78
Race/ethnicity							
American Indian/Alaska Native	1,038	0.94	0.94	0.94	0.91	0.90	0.91
Asian	5,031	0.97	0.97	0.96	0.97	0.97	0.97
Black/African American	95,609	0.94	0.95	0.95	0.95	0.95	0.95
Hispanic/Latino ^c	59,014	0.96	0.96	0.96	0.96	0.96	0.96
Native Hawaiian/other Pacific Islander	279	*	*	*	*	*	*
White	56,926	0.94	0.94	0.93	0.93	0.93	0.93
Multiracial	10,646	0.96	0.96	0.96	0.96	0.95	0.95
Transmission category^d							
Male-to-male sexual contact ^e	150,563	0.96	0.96	0.96	0.96	0.96	0.96
Injection drug use ^f	14,072	0.87	0.89	0.88	0.88	0.88	0.87
Male	7,535	0.86	0.88	0.87	0.87	0.88	0.87
Female	6,537	0.90	0.91	0.89	0.90	0.88	0.88
Male-to-male sexual contact ^e and injection drug use ^f	9,497	0.96	0.95	0.95	0.95	0.94	0.93
Heterosexual contact ^g	53,987	0.93	0.93	0.94	0.93	0.93	0.93
Male	17,757	0.91	0.91	0.91	0.91	0.91	0.91
Female	36,230	0.94	0.95	0.95	0.94	0.95	0.94
Other ^h	425	*	*	*	*	*	*
Male	200	*	*	*	*	*	*
Female	225	*	*	*	*	*	*
Region of residenceⁱ							
Northeast	35,987	0.95	0.95	0.95	0.95	0.95	0.95
Midwest	30,134	0.95	0.95	0.95	0.95	0.95	0.95
South	116,794	0.94	0.95	0.95	0.95	0.95	0.94
West	45,628	0.95	0.95	0.95	0.95	0.96	0.95
Population area of residence^j							
Metropolitan statistical areas (pop. ≥500,000)	185,908	0.95	0.95	0.95	0.95	0.95	0.95
Metropolitan areas (pop. 50,000–499,999)	26,129	0.93	0.94	0.94	0.94	0.93	0.93
Nonmetropolitan areas (pop. <50,000)	13,794	0.92	0.92	0.93	0.93	0.94	0.92
Total	228,543	0.95	0.95	0.95	0.95	0.95	0.95

Abbreviation: pop., population.

Note. Data are based on residence at HIV diagnosis. Data exclude persons whose month of diagnosis or month of death is unknown. The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022. Asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

^a “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^b Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^c Hispanic/Latino persons can be of any race.

^d Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^e Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^f Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^g Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^h Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

ⁱ Region of residence defined by the U.S. Census Bureau.

^j Population area of residence defined by the U.S. Office of Management and Budget.

Table 8b. Persons aged ≥13 years surviving >3 years after HIV diagnosis during 2014–2019, by year of diagnosis and selected characteristics—United States and 6 territories and freely associated states

	No.	Proportion survived >3 years					
		2014	2015	2016	2017	2018	2019
Gender							
Man	183,783	0.95	0.95	0.95	0.95	0.95	0.95
Woman	43,383	0.94	0.94	0.94	0.94	0.93	0.93
Transgender woman ^a	4,121	0.98	0.98	0.97	0.98	0.98	0.97
Transgender man ^a	216	*	*	*	*	*	*
Additional gender identity ^b	139	*	*	*	*	*	*
Age at diagnosis (yr)							
13–24	50,925	0.99	0.99	0.99	0.99	0.99	0.99
25–34	78,946	0.97	0.98	0.98	0.97	0.97	0.97
35–44	44,429	0.95	0.95	0.95	0.95	0.95	0.95
45–54	34,435	0.91	0.92	0.91	0.91	0.91	0.91
55–64	17,669	0.84	0.85	0.86	0.86	0.87	0.86
≥65	5,238	0.74	0.73	0.74	0.77	0.76	0.77
Race/ethnicity							
American Indian/Alaska Native	1,038	0.94	0.94	0.94	0.91	0.90	0.91
Asian	5,052	0.97	0.97	0.96	0.97	0.97	0.97
Black/African American	95,668	0.94	0.95	0.95	0.95	0.95	0.95
Hispanic/Latino ^c	61,983	0.95	0.96	0.96	0.96	0.96	0.96
Native Hawaiian/other Pacific Islander	297	*	*	*	*	*	*
White	56,951	0.94	0.94	0.93	0.93	0.93	0.93
Multiracial	10,653	0.96	0.96	0.96	0.96	0.95	0.95
Transmission category^d							
Male-to-male sexual contact ^e	152,249	0.96	0.96	0.96	0.96	0.96	0.96
Injection drug use ^f	14,343	0.87	0.89	0.87	0.88	0.88	0.87
Male	7,756	0.85	0.88	0.86	0.86	0.88	0.87
Female	6,587	0.89	0.91	0.89	0.90	0.88	0.88
Male-to-male sexual contact ^e and injection drug use ^f	9,580	0.96	0.95	0.95	0.95	0.94	0.93
Heterosexual contact ^g	55,044	0.93	0.93	0.94	0.93	0.93	0.93
Male	18,249	0.91	0.90	0.91	0.91	0.91	0.91
Female	36,794	0.94	0.94	0.95	0.94	0.95	0.94
Other ^h	426	*	*	*	*	*	*
Male	200	*	*	*	*	*	*
Female	226	*	*	*	*	*	*
Region of residenceⁱ							
Northeast	35,987	0.95	0.95	0.95	0.95	0.95	0.95
Midwest	30,134	0.95	0.95	0.95	0.95	0.95	0.95
South	116,794	0.94	0.95	0.95	0.95	0.95	0.94
West	45,628	0.95	0.95	0.95	0.95	0.96	0.95
U.S. territories and freely associated states	3,099	0.89	0.90	0.88	0.90	0.91	0.90
Total	231,642	0.95	0.95	0.95	0.95	0.95	0.95

Note. Data are based on residence at HIV diagnosis. Data exclude persons whose month of diagnosis or month of death is unknown. The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022. Asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

^a “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^b Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^c Hispanic/Latino persons can be of any race.

^d Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^e Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^f Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^g Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^h Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

ⁱ Region of residence defined by the U.S. Census Bureau. U.S. territories and freely associated states include American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands and the Republic of Palau.

Table 8c. Persons aged ≥13 years surviving >3 years after HIV diagnosis during 2014–2019, by year of diagnosis and area of residence—United States and 6 territories and freely associated states

	No.	Proportion survived >3 years					
		2014	2015	2016	2017	2018	2019
Alabama	3,844	0.92	0.94	0.95	0.95	0.93	0.94
Alaska	177	*	*	*	*	*	*
Arizona	4,324	0.95	0.94	0.94	0.94	0.96	0.96
Arkansas	1,734	0.92	0.93	0.95	0.96	0.94	0.92
California	29,186	0.95	0.96	0.96	0.96	0.96	0.95
Colorado	2,451	0.95	0.95	0.95	0.97	0.97	0.94
Connecticut	1,548	0.96	0.99	0.98	0.92	0.96	0.94
Delaware	639	0.96	0.97	0.94	0.94	0.93	0.95
District of Columbia	1,951	0.96	0.96	0.96	0.95	0.94	0.97
Florida	25,599	0.94	0.94	0.95	0.94	0.94	0.94
Georgia	14,923	0.95	0.94	0.95	0.95	0.95	0.95
Hawaii	499	*	*	*	*	*	*
Idaho	220	*	*	*	*	*	*
Illinois	8,594	0.95	0.96	0.96	0.96	0.96	0.96
Indiana	3,091	0.94	0.94	0.95	0.94	0.93	0.95
Iowa	687	0.93	0.97	0.95	0.92	0.93	0.94
Kansas	831	0.96	0.94	0.95	0.97	0.96	0.97
Kentucky	2,080	0.92	0.95	0.93	0.93	0.95	0.95
Louisiana	6,160	0.94	0.94	0.95	0.95	0.94	0.94
Maine	256	*	*	*	*	*	*
Maryland	6,369	0.96	0.96	0.96	0.94	0.95	0.94
Massachusetts	3,632	0.97	0.97	0.95	0.96	0.96	0.96
Michigan	4,389	0.95	0.95	0.95	0.95	0.95	0.96
Minnesota	1,739	0.95	0.97	0.98	0.98	0.96	0.96
Mississippi ^a	2,759	0.93	0.93	0.92	0.94	0.93	0.91
Missouri	2,860	0.96	0.96	0.95	0.93	0.95	0.94
Montana	131	*	*	*	*	*	*
Nebraska	481	*	*	*	*	*	*
Nevada	2,916	0.95	0.95	0.94	0.94	0.97	0.94
New Hampshire	205	*	*	*	*	*	*
New Jersey	6,700	0.94	0.94	0.95	0.94	0.94	0.94
New Mexico	873	0.93	0.91	0.99	0.94	0.92	0.93
New York	16,541	0.95	0.96	0.95	0.96	0.95	0.96
North Carolina	7,827	0.95	0.94	0.95	0.96	0.96	0.95
North Dakota	198	*	*	*	*	*	*
Ohio	5,725	0.94	0.94	0.93	0.95	0.94	0.94
Oklahoma	1,828	0.94	0.94	0.95	0.92	0.93	0.94
Oregon	1,309	0.93	0.96	0.95	0.94	0.96	0.96
Pennsylvania	6,570	0.93	0.94	0.96	0.96	0.94	0.95
Rhode Island	451	*	*	*	*	*	*
South Carolina ^a	4,306	0.93	0.94	0.94	0.94	0.96	0.95
South Dakota	198	*	*	*	*	*	*
Tennessee	4,416	0.93	0.93	0.95	0.94	0.95	0.95
Texas	26,506	0.95	0.95	0.95	0.95	0.95	0.95
Utah ^a	747	0.98	0.97	0.94	0.97	0.96	0.98
Vermont	84	*	*	*	*	*	*
Virginia	5,304	0.96	0.97	0.95	0.96	0.96	0.95
Washington	2,712	0.95	0.98	0.94	0.97	0.95	0.95
West Virginia	549	*	*	*	*	*	*
Wisconsin	1,341	0.94	0.98	0.97	0.93	0.98	0.95
Wyoming	83	*	*	*	*	*	*
Subtotal	228,543	0.95	0.95	0.95	0.95	0.95	0.95
U.S. territories and freely associated states							
American Samoa	0	*	*	*	*	*	*
Guam ^a	37	*	*	*	*	*	*
Northern Mariana Islands	7	*	*	*	*	*	*
Puerto Rico	2,958	0.89	0.90	0.88	0.89	0.91	0.90
Republic of Palau	3	*	*	*	*	*	*
U.S. Virgin Islands ^a	94	*	*	*	*	*	*
Subtotal	3,099	0.89	0.90	0.88	0.90	0.91	0.90
Total	231,642	0.95	0.95	0.95	0.95	0.95	0.95

Note. Data are based on residence at HIV diagnosis. Data exclude persons whose month of diagnosis or month of death is unknown. The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022. U.S. territories and freely associated states include American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands and the Republic of Palau. Asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

^a Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2022.

Table 8d. Persons aged ≥13 years with HIV surviving >3 years after stage 3 (AIDS) classification during 2014–2019, by year of diagnosis and selected characteristics—United States

	No.	Proportion survived >3 years					
		2014	2015	2016	2017	2018	2019
Gender							
Man	80,056	0.85	0.86	0.86	0.86	0.86	0.85
Woman	25,536	0.84	0.84	0.86	0.84	0.83	0.83
Transgender woman ^a	1,506	0.92	0.91	0.92	0.94	0.91	0.88
Transgender man ^a	55	*	*	*	*	*	*
Additional gender identity ^b	32	*	*	*	*	*	*
Age at diagnosis (yr)							
13–24	8,298	0.94	0.95	0.96	0.94	0.95	0.95
25–34	28,579	0.92	0.92	0.93	0.92	0.92	0.91
35–44	25,879	0.88	0.88	0.88	0.88	0.89	0.88
45–54	25,210	0.83	0.83	0.83	0.83	0.83	0.82
55–64	14,472	0.71	0.74	0.74	0.75	0.74	0.72
≥65	4,747	0.57	0.59	0.63	0.61	0.59	0.61
Race/ethnicity							
American Indian/Alaska Native	406	*	*	*	*	*	*
Asian	1,840	0.91	0.91	0.89	0.92	0.92	0.89
Black/African American	48,255	0.84	0.86	0.86	0.86	0.86	0.85
Hispanic/Latino ^c	24,897	0.88	0.87	0.89	0.88	0.89	0.88
Native Hawaiian/other Pacific Islander	106	*	*	*	*	*	*
White	25,439	0.83	0.82	0.82	0.82	0.81	0.80
Multiracial	6,242	0.88	0.87	0.88	0.86	0.86	0.81
Transmission category^d							
Male-to-male sexual contact ^e	58,757	0.87	0.87	0.88	0.88	0.88	0.87
Injection drug use ^f	10,269	0.76	0.76	0.76	0.76	0.76	0.74
Male	5,540	0.74	0.74	0.74	0.75	0.75	0.73
Female	4,729	0.78	0.78	0.79	0.77	0.76	0.75
Male-to-male sexual contact ^e and injection drug use ^f	5,247	0.85	0.85	0.85	0.85	0.83	0.81
Heterosexual contact ^g	31,891	0.84	0.85	0.86	0.85	0.84	0.84
Male	11,554	0.82	0.83	0.83	0.83	0.83	0.82
Female	20,337	0.85	0.86	0.87	0.86	0.85	0.85
Other ^h	1,021	0.90	0.91	0.90	0.91	0.90	0.92
Male	494	*	*	*	*	*	*
Female	528	*	*	*	*	*	*
Region of residenceⁱ							
Northeast	18,385	0.87	0.87	0.87	0.87	0.87	0.85
Midwest	14,067	0.86	0.87	0.86	0.86	0.86	0.87
South	56,158	0.83	0.84	0.85	0.85	0.85	0.84
West	18,575	0.86	0.85	0.86	0.85	0.85	0.85
Population area of residence^j							
Metropolitan statistical areas (pop. ≥500,000)	85,918	0.85	0.86	0.86	0.86	0.86	0.85
Metropolitan areas (pop. 50,000–499,999)	12,561	0.82	0.84	0.83	0.83	0.84	0.81
Nonmetropolitan areas (pop. <50,000)	7,418	0.81	0.81	0.84	0.83	0.84	0.80
Total	107,185	0.85	0.85	0.86	0.85	0.85	0.84

Abbreviation: pop., population.

Note. Data are based on residence when infection was classified as stage 3 (AIDS). Data exclude persons whose month of diagnosis or month of death is unknown. The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022. Asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

^a “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^b Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^c Hispanic/Latino persons can be of any race.

^d Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^e Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^f Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^g Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^h Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

ⁱ Region of residence defined by the U.S. Census Bureau.

^j Population area of residence defined by the U.S. Office of Management and Budget.

Table 8e. Persons aged ≥13 years with HIV surviving >3 years after stage 3 (AIDS) classification during 2014–2019, by year of diagnosis and selected characteristics—United States and 6 territories and freely associated states

	No.	Proportion survived >3 years					
		2014	2015	2016	2017	2018	2019
Gender							
Man	81,200	0.85	0.85	0.86	0.86	0.86	0.85
Woman	25,957	0.84	0.84	0.86	0.84	0.83	0.83
Transgender woman ^a	1,510	0.92	0.91	0.92	0.94	0.91	0.88
Transgender man ^a	55	*	*	*	*	*	*
Additional gender identity ^b	32	*	*	*	*	*	*
Age at diagnosis (yr)							
13–24	8,383	0.94	0.95	0.95	0.94	0.95	0.95
25–34	28,846	0.92	0.92	0.93	0.92	0.92	0.91
35–44	26,261	0.87	0.88	0.88	0.88	0.89	0.88
45–54	25,674	0.83	0.82	0.83	0.83	0.83	0.82
55–64	14,733	0.71	0.74	0.74	0.75	0.74	0.72
≥65	4,857	0.57	0.59	0.63	0.61	0.58	0.61
Race/ethnicity							
American Indian/Alaska Native	406	*	*	*	*	*	*
Asian	1,849	0.91	0.91	0.89	0.92	0.92	0.90
Black/African American	48,290	0.84	0.86	0.86	0.86	0.86	0.85
Hispanic/Latino ^c	26,398	0.86	0.86	0.89	0.87	0.88	0.87
Native Hawaiian/other Pacific Islander	119	*	*	*	*	*	*
White	25,448	0.83	0.82	0.82	0.82	0.81	0.80
Multiracial	6,244	0.88	0.87	0.88	0.86	0.86	0.81
Transmission category^d							
Male-to-male sexual contact ^e	59,284	0.87	0.87	0.88	0.87	0.88	0.87
Injection drug use ^f	10,584	0.75	0.75	0.76	0.75	0.76	0.73
Male	5,787	0.74	0.73	0.74	0.74	0.75	0.72
Female	4,797	0.78	0.78	0.79	0.77	0.76	0.75
Male-to-male sexual contact ^e and injection drug use ^f	5,322	0.85	0.84	0.84	0.85	0.83	0.81
Heterosexual contact ^g	32,520	0.84	0.85	0.85	0.85	0.84	0.84
Male	11,845	0.81	0.83	0.83	0.83	0.82	0.82
Female	20,675	0.85	0.85	0.87	0.86	0.85	0.85
Other ^h	1,044	0.90	0.91	0.90	0.91	0.90	0.92
Male	501	*	*	*	*	*	*
Female	543	*	*	*	*	*	*
Region of residenceⁱ							
Northeast	18,385	0.87	0.87	0.87	0.87	0.87	0.85
Midwest	14,067	0.86	0.87	0.86	0.86	0.86	0.87
South	56,158	0.83	0.84	0.85	0.85	0.85	0.84
West	18,575	0.86	0.85	0.86	0.85	0.85	0.85
U.S. territories and freely associated states	1,569	0.74	0.72	0.74	0.79	0.77	0.78
Total	108,754	0.85	0.85	0.86	0.85	0.85	0.84

Note. Data are based on residence when infection was classified as stage 3 (AIDS). Data exclude persons whose month of diagnosis or month of death is unknown. The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022. Asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

^a “Transgender woman” includes persons who were assigned male sex at birth but have ever identified as a woman. “Transgender man” includes persons who were assigned female sex at birth but have ever identified as a man.

^b Additional gender identity (AGI) includes persons who were assigned male or female sex at birth who do not identify as a man, woman, transgender woman, or transgender man. AGI includes “nonbinary,” “gender queer,” and “two-spirit.”

^c Hispanic/Latino persons can be of any race.

^d Transmission category is classified based on a hierarchy of the risk factors most likely responsible for HIV transmission; classification is determined based on the person’s sex assigned at birth. Because data have been imputed or statistically adjusted to account for missing transmission category, manual calculations of reported data by transmission category may be inaccurate or unreliable and are discouraged. Also, data may not be reported for some populations; therefore, values may not sum to column subtotals and total.

^e Includes persons assigned male sex at birth, regardless of current gender identity, who have had sexual contact with other males, and persons assigned male sex at birth who have had sexual contact with both males and females (i.e., bisexual contact).

^f Includes persons who injected nonprescription drugs or who injected prescription drugs for nonmedical purposes. Also includes injection of drugs prescribed to persons if there is evidence that injection equipment was shared (e.g., syringes, needles, cookers).

^g Heterosexual contact with a person known to have, or with a risk factor for, HIV.

^h Other risk factors, including hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified. Data not displayed because the numbers were too small to be meaningful.

ⁱ Region of residence defined by the U.S. Census Bureau. U.S. territories and freely associated states include American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands and the Republic of Palau.

Table 8f. Persons aged ≥13 years with HIV surviving >3 years after stage 3 (AIDS) classification during 2014–2019, by year of diagnosis and area of residence—United States and 6 territories and freely associated states

	No.	Proportion survived >3 years					
		2014	2015	2016	2017	2018	2019
Alabama	1,803	0.80	0.83	0.85	0.86	0.85	0.84
Alaska	83	*	*	*	*	*	*
Arizona	1,724	0.85	0.81	0.83	0.83	0.86	0.88
Arkansas	756	0.77	0.84	0.89	0.88	0.82	0.80
California	11,552	0.85	0.86	0.86	0.85	0.84	0.84
Colorado	1,102	0.88	0.84	0.87	0.89	0.92	0.84
Connecticut	840	0.88	0.93	0.91	0.84	0.88	0.84
Delaware	368	*	*	*	*	*	*
District of Columbia	1,079	0.82	0.86	0.90	0.82	0.88	0.86
Florida	12,929	0.81	0.83	0.84	0.83	0.83	0.83
Georgia	7,057	0.85	0.87	0.87	0.87	0.87	0.86
Hawaii	202	*	*	*	*	*	*
Idaho	124	*	*	*	*	*	*
Illinois	3,878	0.86	0.87	0.87	0.87	0.89	0.87
Indiana	1,427	0.86	0.84	0.84	0.82	0.85	0.86
Iowa	336	*	*	*	*	*	*
Kansas	373	*	*	*	*	*	*
Kentucky	938	0.84	0.81	0.86	0.85	0.83	0.89
Louisiana	2,968	0.82	0.84	0.86	0.86	0.86	0.83
Maine	131	*	*	*	*	*	*
Maryland	3,412	0.88	0.87	0.85	0.86	0.87	0.83
Massachusetts	1,645	0.90	0.92	0.88	0.87	0.87	0.89
Michigan	2,054	0.88	0.83	0.87	0.83	0.86	0.86
Minnesota	849	0.90	0.91	0.96	0.95	0.89	0.89
Mississippi ^a	1,579	0.82	0.83	0.82	0.83	0.84	0.78
Missouri	1,293	0.90	0.88	0.85	0.88	0.82	0.83
Montana	61	*	*	*	*	*	*
Nebraska	240	*	*	*	*	*	*
Nevada	1,274	0.83	0.83	0.82	0.84	0.84	0.79
New Hampshire	92	*	*	*	*	*	*
New Jersey	3,283	0.86	0.85	0.85	0.87	0.84	0.82
New Mexico	342	*	*	*	*	*	*
New York	8,855	0.86	0.86	0.88	0.87	0.87	0.85
North Carolina	3,614	0.84	0.83	0.83	0.86	0.86	0.86
North Dakota	81	*	*	*	*	*	*
Ohio	2,829	0.85	0.89	0.85	0.87	0.85	0.87
Oklahoma	858	0.84	0.86	0.87	0.83	0.73	0.83
Oregon	652	0.86	0.89	0.86	0.82	0.86	0.86
Pennsylvania	3,280	0.86	0.86	0.88	0.86	0.87	0.87
Rhode Island	205	*	*	*	*	*	*
South Carolina ^a	2,199	0.82	0.85	0.85	0.83	0.88	0.83
South Dakota	99	*	*	*	*	*	*
Tennessee	2,029	0.83	0.83	0.85	0.86	0.82	0.82
Texas	11,937	0.85	0.85	0.86	0.86	0.86	0.84
Utah ^a	289	*	*	*	*	*	*
Vermont	54	*	*	*	*	*	*
Virginia	2,392	0.84	0.85	0.87	0.85	0.84	0.81
Washington	1,136	0.89	0.87	0.89	0.87	0.83	0.85
West Virginia	240	*	*	*	*	*	*
Wisconsin	608	0.82	0.91	0.86	0.83	0.86	0.91
Wyoming	34	*	*	*	*	*	*
Subtotal	107,185	0.85	0.85	0.86	0.85	0.85	0.84
U.S. territories and freely associates states							
American Samoa	0	*	*	*	*	*	*
Guam ^a	20	*	*	*	*	*	*
Northern Mariana Islands	6	*	*	*	*	*	*
Puerto Rico	1,489	0.73	0.72	0.74	0.79	0.76	0.78
Republic of Palau	1	*	*	*	*	*	*
U.S. Virgin Islands ^a	53	*	*	*	*	*	*
Subtotal	1,569	0.74	0.72	0.74	0.79	0.77	0.78
Total	108,754	0.85	0.85	0.86	0.85	0.85	0.84

Note. Data are based on residence when infection was classified as stage 3 (AIDS). Data exclude persons whose month of diagnosis or month of death is unknown. The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state and local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects on U.S. public health systems when interpreting HIV data for 2021–2022. U.S. territories and freely associated states include American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands and the Republic of Palau. Asterisk (*) indicates sample too small (<600 diagnoses during the 6-year period) for the calculation of meaningful survival estimates.

^a Data should be interpreted with caution due to incomplete ascertainment of deaths that occurred during the year 2022.

Table 9a. Perinatally acquired HIV, by year of birth and birthing person's race/ethnicity, 2018–2022—United States

Race/ethnicity ^b	2018		2019		2020 (COVID-19 pandemic) ^a		2021		2022	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Black/African American	22	4.0	16	2.9	23	4.3	17	3.3	28	5.5
Hispanic/Latino ^c	9	1.0	9	1.0	7	0.8	7	0.8	4	0.4
White	7	0.4	7	0.4	7	0.4	0	0.0	5	0.3
Other ^d	7	1.9	4	1.1	2	0.6	1	0.3	5	1.5
Total	45	1.2	36	1.0	39	1.1	25	0.7	42	1.1

Note. Rates are per 100,000 live births. Because of delays in the reporting of births and diagnoses of HIV attributed to perinatal exposure, these numbers may be subject to change.

^a The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state/local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects of U.S. public health systems when interpreting HIV data for 2021–2022.

^b Live-birth data reflect race/ethnicity of the infant's birthing person.

^c Hispanic/Latino persons can be of any race.

^d Includes American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, and multiracial persons.

Table 9b. Perinatally acquired HIV among persons born in the United States, by year of birth and birthing person's race/ethnicity, 2018–2022—United States

Race/ethnicity ^b	2018		2019		2020 (COVID-19 pandemic) ^a		2021		2022	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Black/African American	18	3.3	16	2.9	22	4.2	15	2.9	28	5.5
Hispanic/Latino ^c	9	1.0	9	1.0	7	0.8	7	0.8	4	0.4
White	7	0.4	6	0.3	6	0.3	0	0.0	5	0.3
Other ^d	5	1.4	3	0.8	1	0.3	1	0.3	5	1.5
Total	39	1.0	34	0.9	36	1.0	23	0.6	42	1.1

Note. Rates are per 100,000 live births. Because of delays in the reporting of births and diagnoses of HIV attributed to perinatal exposure, these numbers may be subject to change.

^a The data for 2020, which coincided with the onset of the COVID-19 pandemic, should be interpreted with caution. The pandemic had a significant impact on access to HIV testing, care, and related services, and case surveillance activities in state/local jurisdictions. As the COVID-19 pandemic lasted beyond 2020, please also consider the potential influence of these pandemic effects of U.S. public health systems when interpreting HIV data for 2021–2022.

^b Live-birth data reflect race/ethnicity of the infant's birthing person.

^c Hispanic/Latino persons can be of any race.

^d Includes American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, and multiracial persons.

Table 10. Status of CD4 and viral load reporting by HIV surveillance reporting area, as of December 2023—United States and U.S. territories and freely associated states

	CD4 count (cells/mm ³ or cells/μL) or CD4 percentage		Viral load	
	Lab reporting required ^a	Reportable level ^b	Lab reporting required ^a	Reportable level ^b
Alabama	Yes	All values	Yes	Any result
Alaska	Yes	All values	Yes	Any result
American Samoa	No	—	No	—
Arizona	Yes	All values	Yes	Any result
Arkansas	Yes	All values	Yes	Any result
California	Yes	All values	Yes	Any result
Colorado	Yes	All values	Yes	Any result
Connecticut	Yes	All values	Yes	Any result
Delaware	Yes	All values	Yes	Any result
District of Columbia	Yes	All values	Yes	Any result
Federated States of Micronesia	No	—	No	—
Florida	Yes	All values	Yes	Any result
Georgia	Yes	All values	Yes	Any result
Guam	Yes	All values	Yes	Any result
Hawaii	Yes	All values	Yes	Any result
Idaho	Yes	<200 or <14%	Yes	Detectable
Illinois	Yes	All values	Yes	Any result
Indiana	Yes	All values	Yes	Any result
Iowa	Yes	All values	Yes	Any result
Kansas	Yes	All values	Yes	Any result
Kentucky	Yes	All values	Yes	Any result
Louisiana	Yes	All values	Yes	Any result
Maine	Yes	All values	Yes	Any result
Marshall Islands	No	—	No	—
Maryland	Yes	All values	Yes	Any result
Massachusetts	Yes	All values	Yes	Any result
Michigan	Yes	All values	Yes	Any result
Minnesota	Yes	All values	Yes	Any result
Mississippi	Yes	All values	Yes	Any result
Missouri	Yes	All values	Yes	Any result
Montana	Yes	All values	Yes	Any result
Nebraska	Yes	All values	Yes	Any result
Nevada	Yes	All values	Yes	Any result
New Hampshire	Yes	All values	Yes	Any result
New Jersey	Yes	All values	Yes	Any result
New Mexico	Yes	All values	Yes	Any result

Table 10. Status of CD4 and viral load reporting by HIV surveillance reporting area, as of December 2023—United States and U.S. territories and freely associated states (cont)

	CD4 count (cells/mm ³ or cells/μL) or CD4 percentage		Viral load	
	Lab reporting required ^a	Reportable level ^b	Lab reporting required ^a	Reportable level ^b
New York	Yes	All values	Yes	Any result
North Carolina	Yes	All values	Yes	Any result
North Dakota	Yes	All values	Yes	Any result
Northern Mariana Islands	No	—	No	—
Ohio	Yes	All values	Yes	Any result
Oklahoma	Yes	All values	Yes	Any result
Oregon	Yes	All values	Yes	Any result
Pennsylvania	Yes	All values	Yes	Any result
Puerto Rico	Yes	All values	Yes	Any result
Republic of Palau	No	—	No	—
Rhode Island	Yes	All values	Yes	Any result
South Carolina	Yes	All values	Yes	Any result
South Dakota	Yes	All values	Yes	Any result
Tennessee	Yes	All values	Yes	Any result
Texas	Yes	All values	Yes	Any result
U.S. Virgin Islands	Yes	<200 or <14%	Yes	Detectable
Utah	Yes	All values	Yes	Any result
Vermont	Yes	All values	Yes	Any result
Virginia	Yes	All values	Yes	Any result
Washington	Yes	All values	Yes	Any result
West Virginia	Yes	All values	Yes	Any result
Wisconsin	Yes	All values	Yes	Any result
Wyoming	Yes	All values	Yes	Any result

Abbreviation: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage.

^a Laws, regulations, or statutes in most areas require laboratories to report, but in some instances, the language is not specific.

^b Level at which CD4 or viral load reporting is required by laws, regulations, or statutes.

Table A1. Stage of disease at time of HIV diagnosis during 2022 among persons aged ≥13 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	Total No.	Stage 0 ^a		Stage 1 (CD4 ≥500 cells/mm ³ or ≥26%)		Stage 2 (CD4=200–499 cells/mm ³ or 14%–25%)		Stage 3 (AIDS) (OI or CD4 <200 cells/mm ³ or <14%)		Stage unknown ^b	
		No.	%	No.	%	No.	%	No.	%	No.	%
Arizona											
Maricopa County	579	62	10.7	122	21.1	188	32.5	128	22.1	79	13.6
California											
Alameda County	206	19	9.2	66	32.0	56	27.2	41	19.9	24	11.7
Los Angeles County	1,600	165	10.3	400	25.0	494	30.9	299	18.7	242	15.1
Orange County	257	18	7.0	63	24.5	84	32.7	67	26.1	25	9.7
Riverside County	320	20	6.3	66	20.6	108	33.7	77	24.1	49	15.3
Sacramento County	194	11	5.7	61	31.4	61	31.4	39	20.1	22	11.3
San Bernardino County	288	19	6.6	62	21.5	87	30.2	53	18.4	67	23.3
San Diego County	402	20	5.0	103	25.6	137	34.1	89	22.1	53	13.2
San Francisco County	214	27	12.6	67	31.3	80	37.4	27	12.6	13	6.1
District of Columbia	211	9	4.3	66	31.3	76	36.0	35	16.6	25	11.8
Florida											
Broward County	579	34	5.9	149	25.7	185	32.0	123	21.2	88	15.2
Duval County	280	15	5.4	75	26.8	78	27.9	51	18.2	61	21.8
Hillsborough County	287	21	7.3	74	25.8	85	29.6	68	23.7	39	13.6
Miami-Dade County	1,021	45	4.4	336	32.9	311	30.5	196	19.2	133	13.0
Orange County	417	22	5.3	122	29.3	126	30.2	94	22.5	53	12.7
Palm Beach County	285	5	1.8	96	33.7	84	29.5	81	28.4	19	6.7
Pinellas County	112	11	9.8	26	23.2	38	33.9	27	24.1	10	8.9
Georgia											
Cobb County	171	7	4.1	47	27.5	56	32.7	39	22.8	22	12.9
DeKalb County	361	13	3.6	97	26.9	128	35.5	68	18.8	55	15.2
Fulton County	509	29	5.7	121	23.8	163	32.0	102	20.0	94	18.5
Gwinnett County	209	18	8.6	49	23.4	77	36.8	42	20.1	23	11.0
Illinois											
Cook County	868	74	8.5	204	23.5	266	30.6	164	18.9	160	18.4
Indiana											
Marion County	251	1	0.4	76	30.3	81	32.3	54	21.5	39	15.5
Louisiana											
East Baton Rouge Parish	131	23	17.6	33	25.2	44	33.6	16	12.2	15	11.5
Orleans Parish	125	18	14.4	28	22.4	45	36.0	18	14.4	16	12.8
Maryland											
Baltimore City	160	14	8.8	53	33.1	49	30.6	27	16.9	17	10.6
Montgomery County	105	5	4.8	29	27.6	30	28.6	35	33.3	6	5.7
Prince George's County	254	13	5.1	75	29.5	83	32.7	63	24.8	20	7.9
Massachusetts											
Suffolk County	115	5	4.3	36	31.3	38	33.0	21	18.3	15	13.0
Michigan											
Wayne County	248	30	12.1	53	21.4	75	30.2	53	21.4	37	14.9
Nevada											
Clark County	483	19	3.9	141	29.2	178	36.9	96	19.9	49	10.1
New York											
Bronx County	397	31	7.8	131	33.0	124	31.2	68	17.1	43	10.8
Kings County	491	52	10.6	134	27.3	156	31.8	100	20.4	49	10.0
New York County	332	35	10.5	89	26.8	100	30.1	62	18.7	46	13.9
Queens County	357	37	10.4	89	24.9	125	35.0	80	22.4	26	7.3
North Carolina											
Mecklenburg County	276	28	10.1	53	19.2	96	34.8	51	18.5	48	17.4
Ohio											
Cuyahoga County	118	5	4.2	37	31.4	37	31.4	24	20.3	15	12.7
Franklin County	192	26	13.5	49	25.5	57	29.7	41	21.4	19	9.9
Hamilton County	93	8	8.6	20	21.5	24	25.8	27	29.0	14	15.1
Pennsylvania											
Philadelphia County	385	43	11.2	104	27.0	108	28.1	71	18.4	59	15.3
Tennessee											
Shelby County	338	13	3.8	73	21.6	113	33.4	53	15.7	86	25.4
Texas											
Bexar County	357	35	9.8	86	24.1	99	27.7	78	21.8	59	16.5
Dallas County	896	83	9.3	204	22.8	289	32.3	181	20.2	139	15.5
Harris County	1,260	115	9.1	315	25.0	397	31.5	246	19.5	187	14.8
Tarrant County	329	35	10.6	80	24.3	115	35.0	61	18.5	38	11.6
Travis County	236	44	18.6	52	22.0	83	35.2	43	18.2	14	5.9
Washington											
King County	250	24	9.6	70	28.0	77	30.8	60	24.0	19	7.6

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Information on Ending the HIV Epidemic in the U.S. available at <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>. Stage of disease at time of HIV diagnosis is based on the first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after HIV diagnosis. Data are based on residence at HIV diagnosis. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete lab reporting: New Jersey and Puerto Rico.

^a Determined by a first confirmed positive HIV test result of any type within 6 months after a negative or indeterminate HIV test result, or by a sequence of laboratory tests that demonstrate the presence of HIV-specific viral markers within 6 months before or after a negative or indeterminate antibody test result. The diagnosis of an AIDS-defining condition or a low CD4 test result within the first 6 months after the stage 0 at HIV diagnosis classification does not change the stage from stage 0 to stage 3.

^b Includes persons with no CD4 information.

Table A2. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥13 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	Linkage to care ≤1 month					Viral suppression	
	Total No.	≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤6 months	
		No.	%	No.	%	No.	%
Arizona							
Maricopa County	579	487	84.1	92	15.9	401	69.3
California							
Alameda County	206	180	87.4	26	12.6	157	76.2
Los Angeles County	1,600	1,283	80.2	317	19.8	1,045	65.3
Orange County	257	219	85.2	38	14.8	195	75.9
Riverside County	320	255	79.7	65	20.3	213	66.6
Sacramento County	194	162	83.5	32	16.5	144	74.2
San Bernardino County	288	204	70.8	84	29.2	163	56.6
San Diego County	402	334	83.1	68	16.9	258	64.2
San Francisco County	214	193	90.2	21	9.8	174	81.3
District of Columbia	211	182	86.3	29	13.7	140	66.4
Florida							
Broward County	579	468	80.8	111	19.2	409	70.6
Duval County	280	203	72.5	77	27.5	157	56.1
Hillsborough County	287	240	83.6	47	16.4	212	73.9
Miami-Dade County	1,021	848	83.1	173	16.9	709	69.4
Orange County	417	338	81.1	79	18.9	277	66.4
Palm Beach County	285	248	87.0	37	13.0	226	79.3
Pinellas County	112	97	86.6	15	13.4	84	75.0
Georgia							
Cobb County	171	142	83.0	29	17.0	124	72.5
DeKalb County	361	294	81.4	67	18.6	258	71.5
Fulton County	509	409	80.4	100	19.6	326	64.0
Gwinnett County	209	173	82.8	36	17.2	158	75.6
Illinois							
Cook County	868	725	83.5	143	16.5	597	68.8
Indiana							
Marion County	251	199	79.3	52	20.7	172	68.5
Louisiana							
East Baton Rouge Parish	131	114	87.0	17	13.0	98	74.8
Orleans Parish	125	102	81.6	23	18.4	87	69.6
Maryland							
Baltimore City	160	137	85.6	23	14.4	109	68.1
Montgomery County	105	91	86.7	14	13.3	79	75.2
Prince George's County	254	220	86.6	34	13.4	176	69.3
Massachusetts							
Suffolk County	115	103	89.6	12	10.4	98	85.2
Michigan							
Wayne County	248	206	83.1	42	16.9	175	70.6
Nevada							
Clark County	483	427	88.4	56	11.6	350	72.5
New York							
Bronx County	397	335	84.4	62	15.6	308	77.6
Kings County	491	436	88.8	55	11.2	375	76.4
New York County	332	269	81.0	63	19.0	252	75.9
Queens County	357	321	89.9	36	10.1	275	77.0
North Carolina							
Mecklenburg County	276	221	80.1	55	19.9	204	73.9

Table A2. Linkage to HIV medical care within 1 month and viral suppression within 6 months of HIV diagnosis during 2022 among persons aged ≥13 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions (cont)

Area of residence	Linkage to care ≤1 month				Viral suppression		
	Total No.	≥1 CD4 or VL tests		No CD4 or VL test		VL <200 copies/mL ≤6 months	
		No.	%	No.	%	No.	%
Ohio							
Cuyahoga County	118	99	83.9	19	16.1	81	68.6
Franklin County	192	161	83.9	31	16.1	144	75.0
Hamilton County	93	79	84.9	14	15.1	67	72.0
Pennsylvania							
Philadelphia County	385	307	79.7	78	20.3	248	64.4
Tennessee							
Shelby County	338	218	64.5	120	35.5	207	61.2
Texas							
Bexar County	357	285	79.8	72	20.2	217	60.8
Dallas County	896	688	76.8	208	23.2	500	55.8
Harris County	1,260	992	78.7	268	21.3	815	64.7
Tarrant County	329	263	79.9	66	20.1	193	58.7
Travis County	236	208	88.1	28	11.9	176	74.6
Washington							
King County	250	227	90.8	23	9.2	197	78.8

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; OI, opportunistic illness (i.e., AIDS-defining condition); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Information on Ending the HIV Epidemic in the U.S. available at <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>. Stage of disease at time of HIV diagnosis is based on the first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after HIV diagnosis. Data are based on residence at HIV diagnosis. Linkage to HIV medical care was measured by documentation of ≥1 CD4 or VL tests ≤1 month after HIV diagnosis. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are within 6 months of HIV diagnosis during 2022. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete lab reporting: New Jersey and Puerto Rico.

Table A3. Receipt of HIV medical care during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	Persons alive at year-end 2022 Total No.	≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
		No.	%	No.	%	No.	%
Arizona							
Maricopa County	12,136	9,085	74.9	6,848	56.4	7,117	58.6
California							
Alameda County	5,785	4,548	78.6	2,906	50.2	4,156	71.8
Los Angeles County	49,421	35,847	72.5	26,304	53.2	32,168	65.1
Orange County	7,077	5,005	70.7	3,698	52.3	4,634	65.5
Riverside County	10,265	8,570	83.5	6,371	62.1	8,014	78.1
Sacramento County	4,490	3,588	79.9	2,275	50.7	3,190	71.0
San Bernardino County	4,967	3,406	68.6	2,227	44.8	2,976	59.9
San Diego County	13,363	9,571	71.6	6,619	49.5	7,980	59.7
San Francisco County	11,346	9,143	80.6	6,057	53.4	8,506	75.0
District of Columbia	13,338	9,076	68.0	6,161	46.2	7,680	57.6
Florida							
Broward County	20,154	15,974	79.3	12,669	62.9	14,500	71.9
Duval County	6,343	5,093	80.3	3,857	60.8	4,258	67.1
Hillsborough County	7,368	6,059	82.2	4,874	66.2	5,398	73.3
Miami-Dade County	26,949	19,006	70.5	14,930	55.4	16,502	61.2
Orange County	9,197	7,338	79.8	5,647	61.4	6,597	71.7
Palm Beach County	8,111	6,019	74.2	4,688	57.8	5,383	66.4
Pinellas County	4,842	4,116	85.0	3,516	72.6	3,783	78.1
Georgia							
Cobb County	3,612	2,779	76.9	2,046	56.6	2,410	66.7
DeKalb County	8,844	6,888	77.9	5,043	57.0	5,738	64.9
Fulton County	15,887	12,184	76.7	9,093	57.2	10,116	63.7
Gwinnett County	3,348	2,593	77.4	1,888	56.4	2,278	68.0
Illinois							
Cook County	25,127	19,249	76.6	12,683	50.5	14,891	59.3
Indiana							
Marion County	4,870	3,950	81.1	2,523	51.8	3,328	68.3
Louisiana							
East Baton Rouge Parish	3,868	3,334	86.2	2,773	71.7	2,949	76.2
Orleans Parish	4,677	3,722	79.6	2,587	55.3	3,270	69.9
Maryland							
Baltimore City	10,104	7,534	74.6	5,135	50.8	6,222	61.6
Montgomery County	3,941	2,489	63.2	1,708	43.3	2,010	51.0
Prince George's County	7,945	5,764	72.5	3,941	49.6	4,558	57.4
Massachusetts							
Suffolk County	5,506	4,000	72.6	2,511	45.6	3,590	65.2
Michigan							
Wayne County	6,996	5,529	79.0	3,591	51.3	4,731	67.6
Nevada							
Clark County	9,581	7,141	74.5	5,084	53.1	6,150	64.2

Table A3. Receipt of HIV medical care during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—Ending the HIV Epidemic Phase I jurisdictions (cont)

Area of residence	Persons alive at year-end 2022 Total No.	≥1 CD4 or VL tests		≥2 CD4 or VL tests ^a		VL <200 copies/mL ^b	
		No.	%	No.	%	No.	%
New York							
Bronx County	26,702	20,665	77.4	16,842	63.1	17,782	66.6
Kings County	25,553	18,012	70.5	14,213	55.6	15,992	62.6
New York County	25,598	17,251	67.4	13,281	51.9	15,673	61.2
Queens County	16,087	11,154	69.3	8,723	54.2	10,249	63.7
North Carolina							
Mecklenburg County	6,398	5,095	79.6	3,575	55.9	4,394	68.7
Ohio							
Cuyahoga County	4,860	3,673	75.6	2,371	48.8	3,240	66.7
Franklin County	5,163	4,065	78.7	2,539	49.2	3,607	69.9
Hamilton County	3,075	2,291	74.5	1,355	44.1	1,963	63.8
Pennsylvania							
Philadelphia County	16,401	11,620	70.8	8,366	51.0	10,214	62.3
Tennessee							
Shelby County	6,463	5,132	79.4	3,999	61.9	4,181	64.7
Texas							
Bexar County	6,776	5,221	77.1	3,499	51.6	4,536	66.9
Dallas County	19,302	15,337	79.5	11,433	59.2	11,700	60.6
Harris County	27,605	20,595	74.6	14,834	53.7	16,137	58.5
Tarrant County	6,384	5,130	80.4	3,837	60.1	4,045	63.4
Travis County	5,170	4,237	82.0	2,937	56.8	3,672	71.0
Washington							
King County	7,032	6,119	87.0	3,755	53.4	5,660	80.5

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Information on Ending the HIV Epidemic in the U.S. available at <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>. Data are based on residence as of December 31, 2022 (i.e., most recent known address). Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.

^a Performed ≥3 months apart during 2022.

^b A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results are from the most recent test during 2022.

Table A4. HIV viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—Ending the HIV Epidemic Phase I jurisdictions

Area of residence	Persons alive at year-end 2022 No.	Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		VL <200 copies/mL			
		No.	%	No.	%	Total No.	Among persons alive at year-end 2022	Among persons with ≥1 CD4 or VL tests	Among persons with ≥1 VL tests
							%	%	%
Arizona									
Maricopa County	12,136	9,085	74.9	7,854	64.7	7,117	58.6	78.3	90.6
California									
Alameda County	5,785	4,548	78.6	4,444	76.8	4,156	71.8	91.4	93.5
Los Angeles County	49,421	35,847	72.5	34,851	70.5	32,168	65.1	89.7	92.3
Orange County	7,077	5,005	70.7	4,894	69.2	4,634	65.5	92.6	94.7
Riverside County	10,265	8,570	83.5	8,434	82.2	8,014	78.1	93.5	95.0
Sacramento County	4,490	3,588	79.9	3,471	77.3	3,190	71.0	88.9	91.9
San Bernardino County	4,967	3,406	68.6	3,274	65.9	2,976	59.9	87.4	90.9
San Diego County	13,363	9,571	71.6	8,497	63.6	7,980	59.7	83.4	93.9
San Francisco County	11,346	9,143	80.6	9,031	79.6	8,506	75.0	93.0	94.2
District of Columbia	13,338	9,076	68.0	8,620	64.6	7,680	57.6	84.6	89.1
Florida									
Broward County	20,154	15,974	79.3	15,730	78.0	14,500	71.9	90.8	92.2
Duval County	6,343	5,093	80.3	4,793	75.6	4,258	67.1	83.6	88.8
Hillsborough County	7,368	6,059	82.2	5,982	81.2	5,398	73.3	89.1	90.2
Miami-Dade County	26,949	19,006	70.5	18,072	67.1	16,502	61.2	86.8	91.3
Orange County	9,197	7,338	79.8	7,216	78.5	6,597	71.7	89.9	91.4
Palm Beach County	8,111	6,019	74.2	5,906	72.8	5,383	66.4	89.4	91.1
Pinellas County	4,842	4,116	85.0	4,044	83.5	3,783	78.1	91.9	93.5
Georgia									
Cobb County	3,612	2,779	76.9	2,664	73.8	2,410	66.7	86.7	90.5
DeKalb County	8,844	6,888	77.9	6,496	73.5	5,738	64.9	83.3	88.3
Fulton County	15,887	12,184	76.7	11,637	73.2	10,116	63.7	83.0	86.9
Gwinnett County	3,348	2,593	77.4	2,496	74.6	2,278	68.0	87.9	91.3
Illinois									
Cook County	25,127	19,249	76.6	16,659	66.3	14,891	59.3	77.4	89.4
Indiana									
Marion County	4,870	3,950	81.1	3,740	76.8	3,328	68.3	84.3	89.0
Louisiana									
East Baton Rouge Parish	3,868	3,334	86.2	3,305	85.4	2,949	76.2	88.5	89.2
Orleans Parish	4,677	3,722	79.6	3,669	78.4	3,270	69.9	87.9	89.1
Maryland									
Baltimore City	10,104	7,534	74.6	7,048	69.8	6,222	61.6	82.6	88.3
Montgomery County	3,941	2,489	63.2	2,174	55.2	2,010	51.0	80.8	92.5
Prince George's County	7,945	5,764	72.5	5,054	63.6	4,558	57.4	79.1	90.2
Massachusetts									
Suffolk County	5,506	4,000	72.6	3,839	69.7	3,590	65.2	89.8	93.5

Table A4. HIV viral suppression during 2022 among persons aged ≥13 years with HIV diagnosed by year-end 2021 and alive at year-end 2022, by area of residence—Ending the HIV Epidemic Phase I jurisdictions (cont)

Area of residence	Persons alive at year-end 2022 No.	Persons with ≥1 CD4 or VL tests		Persons with ≥1 VL tests		VL <200 copies/mL			
						Total No.	Among persons alive at year-end 2022	Among persons with ≥1 CD4 or VL tests	Among persons with ≥1 VL tests
							%	%	%
Michigan									
Wayne County	6,996	5,529	79.0	5,403	77.2	4,731	67.6	85.6	87.6
Nevada									
Clark County	9,581	7,141	74.5	6,726	70.2	6,150	64.2	86.1	91.4
New York									
Bronx County	26,702	20,665	77.4	20,491	76.7	17,782	66.6	86.0	86.8
Kings County	25,553	18,012	70.5	17,796	69.6	15,992	62.6	88.8	89.9
New York County	25,598	17,251	67.4	17,113	66.9	15,673	61.2	90.9	91.6
Queens County	16,087	11,154	69.3	11,048	68.7	10,249	63.7	91.9	92.8
North Carolina									
Mecklenburg County	6,398	5,095	79.6	4,964	77.6	4,394	68.7	86.2	88.5
Ohio									
Cuyahoga County	4,860	3,673	75.6	3,594	74.0	3,240	66.7	88.2	90.2
Franklin County	5,163	4,065	78.7	3,956	76.6	3,607	69.9	88.7	91.2
Hamilton County	3,075	2,291	74.5	2,242	72.9	1,963	63.8	85.7	87.6
Pennsylvania									
Philadelphia County	16,401	11,620	70.8	11,436	69.7	10,214	62.3	87.9	89.3
Tennessee									
Shelby County	6,463	5,132	79.4	5,065	78.4	4,181	64.7	81.5	82.5
Texas									
Bexar County	6,776	5,221	77.1	5,104	75.3	4,536	66.9	86.9	88.9
Dallas County	19,302	15,337	79.5	13,224	68.5	11,700	60.6	76.3	88.5
Harris County	27,605	20,595	74.6	18,692	67.7	16,137	58.5	78.4	86.3
Tarrant County	6,384	5,130	80.4	4,633	72.6	4,045	63.4	78.8	87.3
Travis County	5,170	4,237	82.0	3,950	76.4	3,672	71.0	86.7	93.0
Washington									
King County	7,032	6,119	87.0	6,040	85.9	5,660	80.5	92.5	93.7

Abbreviations: CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage; VL, viral load (copies/mL); CDC, the Centers for Disease Control and Prevention [footnotes only].

Note. Information on Ending the HIV Epidemic in the U.S. available at <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>. Data are based on address of residence as of December 31, 2022 (i.e., most recent known address). Data for the year 2022 are preliminary and based on death data received by CDC as of December 2023. A VL test result of <200 copies/mL indicates HIV viral suppression. VL test results during 2022. Data not provided for states and associated jurisdictions that do not have laws requiring reporting of all CD4 and viral loads, or that have incomplete reporting of laboratory data to CDC. Areas without laws: Idaho. Areas with incomplete reporting: New Jersey and Puerto Rico.